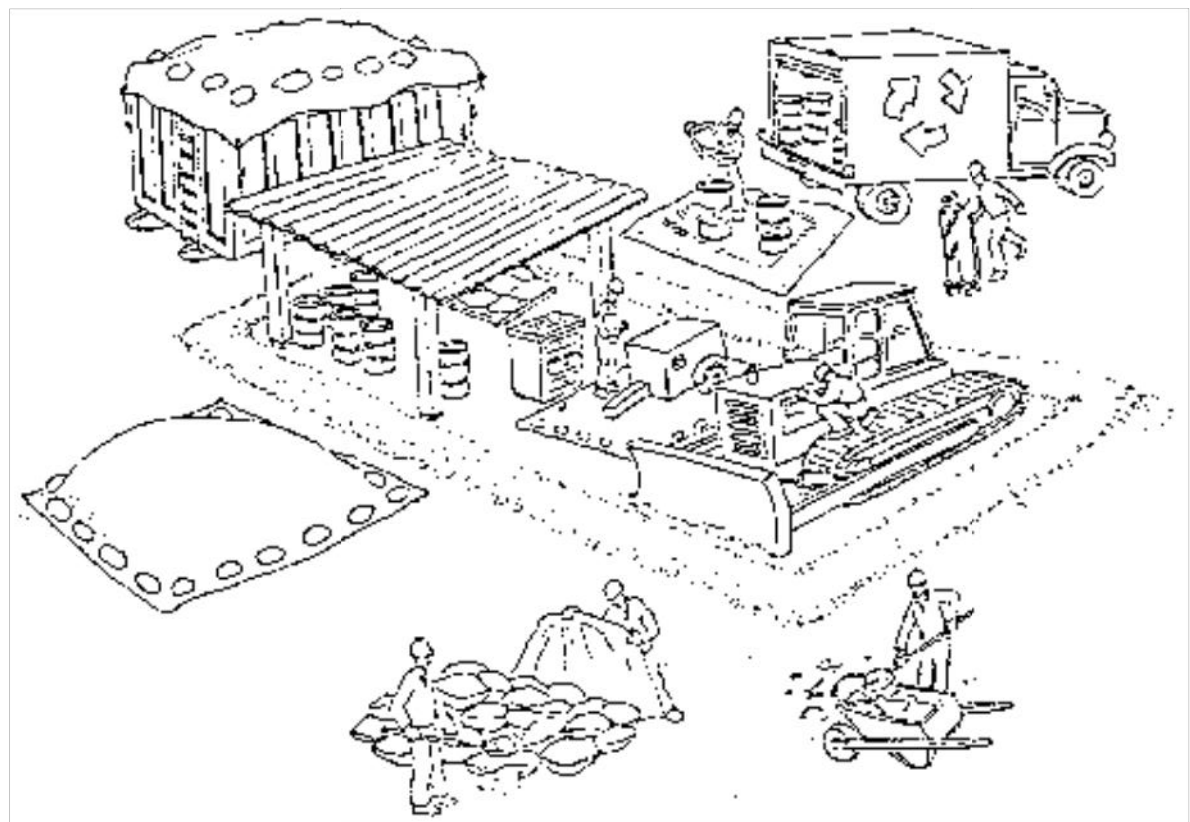






# Pollution Prevention — It's Part of the Plan



## Make sure your crews and subs do the job right!

Runoff from streets and other paved areas is a major source of pollution in San Francisco Bay. Construction activities can directly affect the health of the Bay unless contractors and crews plan ahead to keep dirt, debris, and other construction waste away from storm drains and local creeks. Following these guidelines will ensure your compliance with local ordinance requirements.



### Materials storage & spill cleanup

#### Non-hazardous materials management

- ✓ Sand, dirt, and similar materials must be stored at least 10 feet from catch basins, and covered with a tarp during wet weather or when rain is forecast.
- ✓ Use (but don't overuse) reclaimed water for dust control as needed.
- ✓ Sweep streets and other paved areas daily. Do not wash down streets or work areas with water!
- ✓ Recycle all asphalt, concrete, and aggregate base material from demolition activities.
- ✓ Check dumpsters regularly for leaks and to make sure they don't overflow. Repair or replace leaking dumpsters promptly.

#### Hazardous materials management

- ✓ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, state, and federal regulations.
- ✓ Store hazardous materials and wastes in secondary containment and cover them during wet weather.
- ✓ Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ✓ Be sure to arrange for appropriate disposal of all hazardous wastes.

#### Spill prevention and control

- ✓ Keep a stockpile of spill cleanup materials (rags, absorbents, etc. ) available at the construction site at all times.
- ✓ When spills or leaks occur, contain them immediately and be particularly careful to prevent leaks and spills from reaching the gutter, street, or storm drain. Never wash spilled material into a gutter, street, storm drain, or creek!
- ✓ Report any hazardous materials spills immediately! Dial 911 or your local emergency response number.

### Vehicle and equipment maintenance & cleaning

- ✓ Inspect vehicles and equipment for leaks frequently. Use drip pans to catch leaks until repairs are made; repair leaks promptly.
- ✓ Fuel and maintain vehicles on site only in a bermed area or over a drip pan that is big enough to prevent runoff.
- ✓ If you must clean vehicles or equipment on site, clean with water only in a bermed area that will not allow rinsewater to run into gutters, streets, storm drains, or creeks.
- ✓ Do not clean vehicles or equipment on-site using soaps, solvents, degreasers, steam cleaning equipment, etc.



### Dewatering operations

- ✓ Reuse water for dust control, irrigation, or another on-site purpose to the greatest extent possible.
- ✓ Be sure to call your city's storm drain inspector before discharging water to a street, gutter, or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- ✓ In areas of known contamination, testing is required prior to reuse or discharge of groundwater. Consult with the city inspector to determine what testing to do and to interpret results. Contaminated groundwater must be treated or hauled off-site for proper disposal.



### Saw cutting

- ✓ Always completely cover or barricade storm drain inlets when saw cutting. Use filter fabric, hay bales, sand bags, or fine gravel dams to keep slurry out of the storm drain system.
- ✓ Shovel, absorb, or vacuum saw-cut slurry and pick up all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- ✓ If saw cut slurry enters a catch basin, clean it up immediately.

### Concrete, grout, and mortar storage & waste disposal

- ✓ Be sure to store concrete, grout, and mortar under cover and away from drainage areas. These materials must never reach a storm drain.
- ✓ Wash out concrete equipment/trucks off-site or designate an on-site area for washing where water will flow onto dirt or into a temporary pit in a dirt area. Let the water seep into the soil and dispose of hardened concrete with trash.
- ✓ Divert water from washing exposed aggregate concrete to a dirt area where it will not run into a gutter, street, or storm drain.
- ✓ If a suitable dirt area is not available, collect the wash water and remove it for appropriate disposal off site.



### Paving/asphalt work

- ✓ Do not pave during wet weather or when rain is forecast.
- ✓ Always cover storm drain inlets and man-holes when paving or applying seal coat, tack coat, slurry seal, or fog seal.
- ✓ Place drip pans or absorbent material under paving equipment when not in use.
- ✓ Protect gutters, ditches, and drainage courses with hay bales, sand bags, or earthen berms.
- ✓ Do not sweep or wash down excess sand from sand sealing into gutters, storm drains, or creeks. Collect sand and return it to the stockpile, or dispose of it as trash.
- ✓ Do not use water to wash down fresh asphalt concrete pavement.



### Painting

- ✓ Never rinse paint brushes or materials in a gutter or street!
- ✓ Paint out excess water-based paint before rinsing brushes, rollers, or containers in a sink. If you can't use a sink, direct wash water to a dirt area and spade it in.
- ✓ Paint out excess oil-based paint before cleaning brushes in thinner.
- ✓ Filter paint thinners and solvents for reuse whenever possible. Dispose of oil-based paint sludge and unusable thinner as hazardous waste.



### TOWN HOUSE

202 ALTURA VISTA,  
LOS ALTOS, CA 95032  
PROJECT

### ADDITION & REMODEL

AA HOME  
DESIGN &  
BUILD LLC

### DESIGN SERVICES

T: 408.431.2952  
AA.HomeDesignBuild@gmail.com

SHEET TITLE

### BEST MANAGEMENT PRACTICES

REVISION



DATE 05.05.21  
DRAWN AA  
SCALE AS SHOWN  
SHEET

A-1-1

OF 13 SHEETS



202 ALTURA VISTA,  
LOS ALTOS, CA 95032

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DESIGN &  
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T: 408.431.2952  
AA.HomeDesignBuild  
@gmail.com

REVISION

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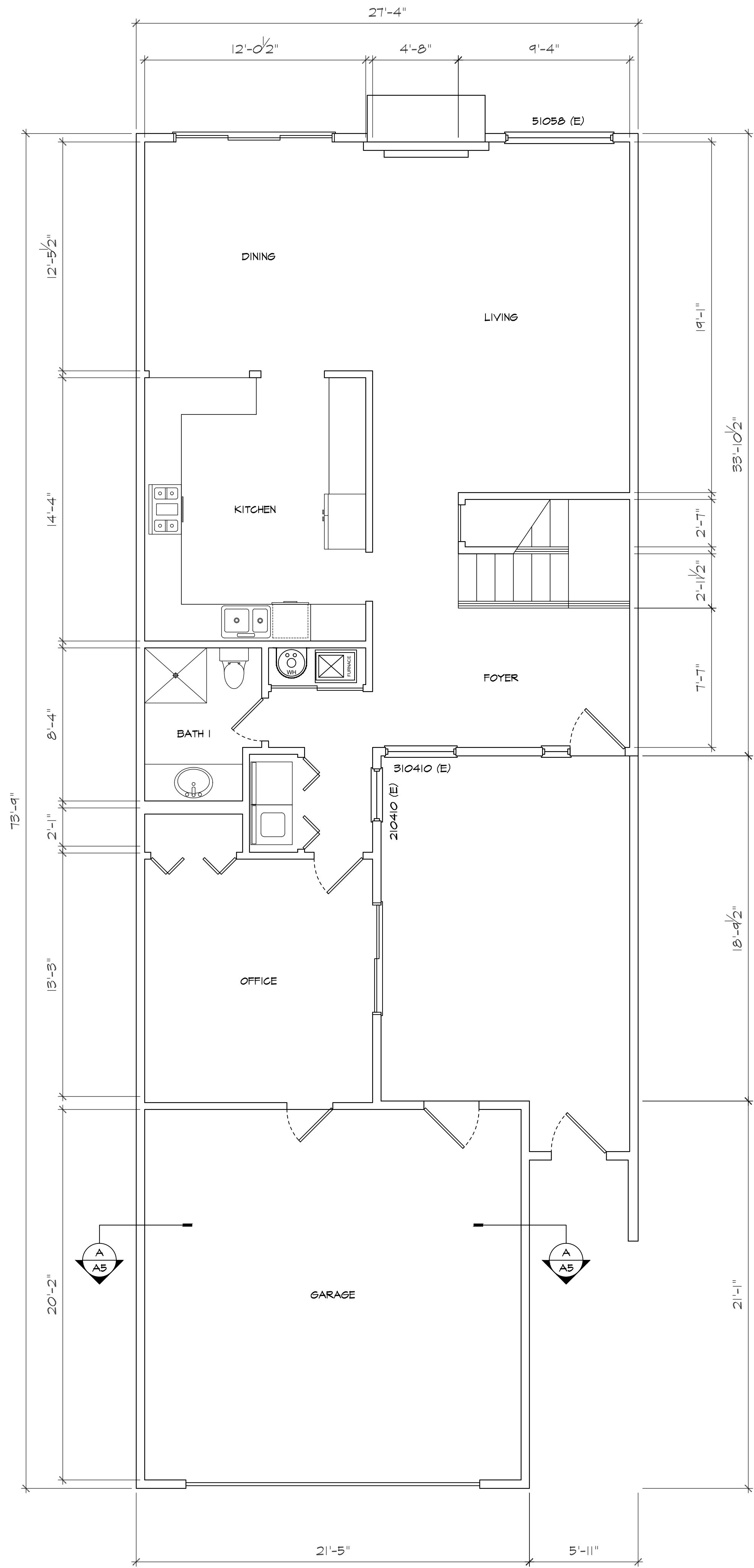
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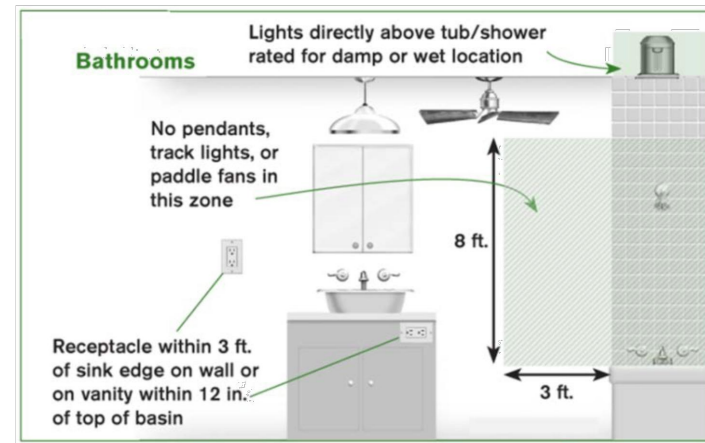
EXISTING 1st FLOOR PLAN (NO CHANGE)

SCALE 1/4" = 1'-0"

#### BATHROOMS

##### Bath Electrical:

- All installed lighting shall be high efficacy. [CNC 150.0(k)1A] (**new in 2016 codes**)
- At least one light shall be controlled by a vacancy sensor (a manual-on, automatic-off occupancy sensor). [CNC 150.0(k)2AJ (**new in 2016 codes**)
- Exhaust fans must be switched separate from lighting, with the exception that lighting integral to an exhaust fan can be on the same switch if the fan is controlled by a humidistat that continues its operation after the light is off.
- All receptacle outlets in bathrooms shall be GFCI protected [CEC 210.8A1].
- All receptacle outlets in bathrooms shall be tamper resistant [CEC 406.12A].
- When a bathtub or shower stall is in an area not technically considered a bathroom (by the definitions in the electrical code), receptacles within 6 ft. of the tub/shower stall must be GFCI-protected. [CEC210.8A9]. (**new in 2016 codes**)
- A receptacle outlet is required within 3 feet of each wash basin location. It may be on the wall, or an adjacent partition, or on the face or side of the cabinet not more than 12 inches below the top of the basin [CEC 210.52D]. (**Change in 2016 codes** – previous code measured the 12 inches from the top of the vanity. Basins such as that in the figure below are sometimes well above the top of the vanity).
- Receptacles cannot be face-up in a vanity surface; listed pop-up receptacles are allowed [CEC 406.5E & 210.52D].
- A minimum of one 20-amp circuit is required for the receptacles in the bathroom(s). This circuit can have no other outlets, including lights [CEC 210.11C3]. If a 20-amp circuit serves only one (1) bathroom, lights and fans can be on the same circuit with the receptacles in that bathroom [CEC 210.11C3 exception].
- Hydro-massage tubs require an individual (dedicated) branch circuit and readily accessible GFCI protection [CEC 680.71]. An access door is required and must be large enough to remove the motor and pump. Cord-connected equipment must have the receptacle facing the opening and be no more than one foot behind the access hatch [CEC 680.73].



- Recessed light fixtures in shower enclosures must be listed for a damp or wet location [CEC 410.10A]
- Pendant light fixtures, track lights, and paddle fans shall not be installed lower than 8 feet above the flood-level rim of a tub, including the area 3 feet past the edge of the tub [CEC 410.10D].
- Electrical panels shall not be installed in bathrooms [CEC 240.24E].
- Switches and receptacles are not allowed in bathtub or shower spaces [CEC 404.4C & 406.9C].

#### BATHROOMS (Continued)

##### Bathroom Plumbing, General:

- All piping 3/4 inch or more in diameter and all hot water pipes associated with a recirculation system must be insulated with min. 1-inch thick insulation. Existing inaccessible piping does not require insulation [CNC 150.0(j)2].
- Newly installed plumbing fixtures shall be water-conserving in compliance with the California Plumbing Code and Green Building Standards. Water closets shall not exceed 1.28 gallons per flush, showerheads shall not exceed 2.0 GPM and new lavatory faucets shall not exceed 1.2 GPM at 60 PSI. [CPC 407.2, 408.2 & 411.2] All Existing plumbing fixtures not included in the scope of new work shall be replaced if necessary to comply with SB407 Plumbing Fixtures Replacement requirements – See Water Conservation Certification Form.

##### Bathroom Plumbing, Toilets & Bidets:

- Toilets and bidets require a minimum 15 inches of clearance from the center line of the bowl to each side, and 24 inches of clearance from the front edge of the bowl [CPC 402.5]. The maximum flow rate is 1.28 GPF [CPC 403.2.1].
- Lavatory sinks require a minimum of 24 inches front clearance [CPC 402.5] (**new in 2016 code**)
- Showers require a minimum 2 inch drain and trap [CPC Table 702.1].
- All shower compartments shall have a minimum finished interior of 1024 square inches and shall be capable of encompassing a 30 inch diameter circle [CPC 408.6]. The curb may encroach on these size requirements. All surfaces shall be waterproof up to 72 inches above the drain inlet [CRC R307.2]. Thresholds shall be of sufficient width to accommodate a minimum 22 inch clear egress opening from the shower [CPC 408.5].
- Safety glass (tempered or laminated) is required for all glass shower doors and partitions and for windows in walls facing the tub or shower and located less than 60 inches above the standing surface of the tub/shower and within 60 inches horizontally [CRC R308.4.1&5].
- The maximum water temperature to a shower or tub/shower combination is 120°F. The water heater thermostat cannot be used as the control for this temperature. Valves shall provide scald and thermal shock protection, and be pressure-balanced, thermostatic, or combination pressure-balanced/thermostatic mixing in accordance with ASSE 1016 or ASME A112.18.1/CSA B125.1. [CPC 408.3].

##### Mechanical:

- Mechanical ventilation is required in all bathrooms with tubs or showers. The fan must move a minimum 50 CFM of air and be separately switched from the lighting. Fans that operate continuously can be 20 CFM. The duct must terminate on the exterior not less than 3 feet from openings into the building [CMC 502.2.1].
- Baths with no tub or shower (half baths) do not require mechanical ventilation if they are provided with a window at least 3 sq. ft. half of which is openable [CRC R303.3].

##### Tile & Backing:

- Water-resistant gypsum board (purple board) can be used as a tile backer board in areas that are not subject to direct exposure to water or high humidity [CRC R702.3.7.1]. Examples would be a wall behind a toilet or above a vanity countertop. Purple board cannot be used in a shower for direct application of tile. It can be used in showers behind a water-resistive membrane with mortar bed and lath. Other acceptable materials for application of tile in showers include cement board, fiber-cement or glass mat gypsum backers [CRC R702.4.2].

owner

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III

## TOWN HOUSE

202 ALTURA VISTA,  
LOS ALTOS, CA 95032  
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## ADDITION & REMODEL

AA HOME  
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BUILD LLC

DESIGN  
SERVICES

T: 408.431.2952  
AA.HomeDesignBuild  
@gmail.com

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## EXISTING 1st FLOOR PLAN

REVISION

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DATE 05.05.21

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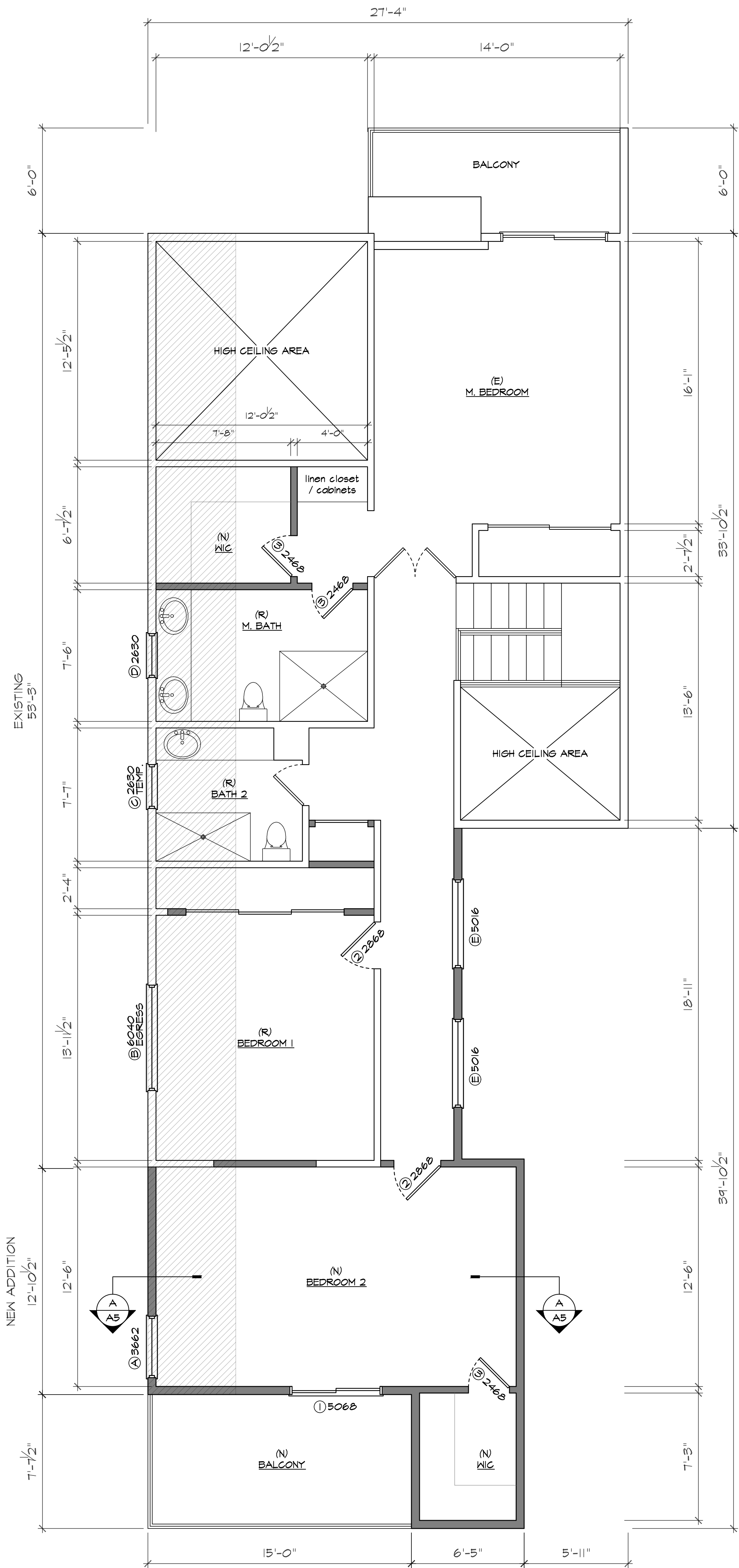
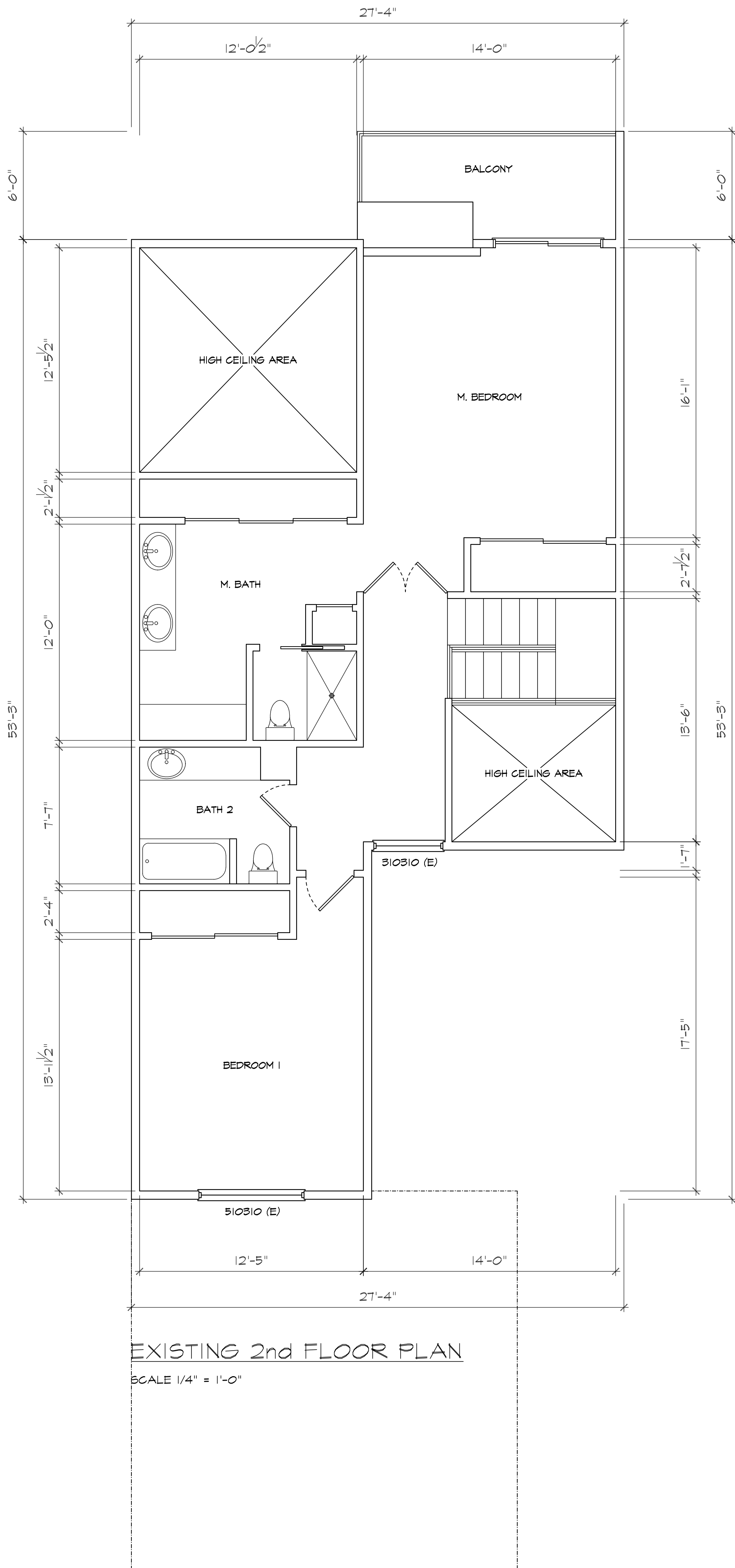
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OF 13 SHEETS





LEGEND & NOTES :						
<div><div></div><div>EXISTING WALL</div></div>	<div><div></div><div>NEW WALL</div></div>	<div><div>1</div><div>1 HR. FIRE RATED WALL &amp; CEILING AT THE AREA WITHIN 5' AWAY FROM P.L. SEE DETAILS 12 &amp; 13/A-4</div></div>	<div><div>2</div><div>WASHER SPACE PROVIDE HOT &amp; COLD WATER SUPPLY ONE WASTE LINE W/ PAN &amp; DRAIN TO OUTSIDE</div></div>	<div><div>3</div><div>CLOTHES DRYER VENT MIN. 4" TO OUTSIDE W/ MAX. LENGTH OF 14' W/ BACK-DRAFT DAMPER INCL. TWO 90° ELBOW per CMC 504.3</div></div>	<div><div>4</div><div>SECTION 4.504.3 CG 2019 CARPET AND PAD</div></div>	
<div><div>A 2020</div><div>DOOR + WINDOW CALL-OUT</div></div>	<div><div>ABBREVIATIONS:</div><div>SH D : SHOWER HEAD</div><div>VL : VALVE</div><div>(E) : EXISTING</div><div>(N) : NEW</div></div>					
DOOR & WINDOW SCHEDULE						
DOOR CALL-OUT, 2 RAISED PANEL, SOLID CORE DR U.N.O.			WINDOW CALL-OUT U FACTOR & SHGC PER T24, U.N.O.			
DOOR HEADER AT 6'-8" ABOVE F.F., U.N.O.			WINDOW HEADER AT 6'-8" ABOVE F.F., U.N.O.			
<div>1</div>	<div>5068 SLD TEMP.</div>	<div>* 1 EA</div>	<div>BEDROOM 2</div>	<div>A 3662 CSMNT</div>	<div>1 EA</div>	<div>BEDROOM 2</div>
<div>2</div>	<div>2880 HINGED INT.</div>	<div>2 EA</div>	<div>BEDROOM 1 &amp; 2</div>	<div>B 6040 SLD</div>	<div>1 EA</div>	<div>BEDROOM 1</div>
<div>3</div>	<div>2480 HINGED INT.</div>	<div>3 EA</div>	<div>M. BATH &amp; CLOSETS</div>	<div>C 2630 SH TEMPERED</div>	<div>1 EA</div>	<div>BATH 2</div>
				<div>D 2630 SH</div>	<div>1 EA</div>	<div>M. BATH</div>
				<div>E 5016 FIX</div>	<div>2 EA</div>	<div>WALKWAY</div>
<div>GENERAL CONTRACTOR TO MEASURE &amp; FIELD VERIFY ALL DIMENSIONS OF ROUGH FRAMING PRIOR TO ORDERING ANY WINDOWS AND DOORS. NOTIFY THE DESIGNER/ENGINEER IMMEDIATELY OF ANY DISCREPANCIES BEFORE PROCEEDING.</div>				<div>AT LEAST ONE EGRESS DOOR SHALL BE READILY OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. CRC R311.2</div>		
<div>* THRESHOLD AT ALL DOORWAY IS 3/4" MAX.</div>						

CAL GREEN 2019 MANDATORY MEASURES :

- 4.303.1 INDOOR WATER USE SHALL BE REDUCED BY AT LEAST 20 PERCENT USING WATER SAVING FIXTURES OR FLOW RESTRICTORS.
- 4.303.2 WHEN USING CALCULATION METHOD SPECIFIED IN SECTION 4.303.1, MULTIPLE SHOWER HEADS SHALL COMPLY WITH SPECIFIED PERFORMANCE REQUIREMENT
- 4.303.3 PLUMBING FIXTURES (WATER CLOSETS AND URINALS) AND FITTINGS (FAUCETS AND SHOWERHEADS) SHALL COMPLY WITH SPECIFIED PERFORMANCE REQUIREMENTS.
- 4.305.3 MOISTURE CONTENT OF BUILDING MATERIALS USED IN WALL AND FLOOR FRAMING IS CHECKED BEFORE ENCLOSURE. CITY WILL VERIFY MOISTURE CONTENT MAX 18%.
- 4.406.1 JOINTS AND OPENINGS, ANNULAR SPACES AROUND PIPES, ELECTRIC, CABLES, CONDUITS OR OTHER OPENINGS IN PLATES AT EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS WITH CEMENT MORTAR, CONCRETE MASONRY OR SIMILAR METHOD ACCEPTABLE TO THE ENFORCING AGENCY

PLAN NOTES

1. ALL BEDROOM WINDOWS SHALL HAVE A MAXIMUM SILL HEIGHT OF 44" ABOVE FINISH FLOOR
2. ALL WINDOWS AND DOORS GLASS SHALL BE DOUBLE GLAZED
3. 1 HOUR FIRE RATED ASSEMBLY SHALL BE PROVIDED ALONG WALL/CEILING BETWEEN GARAGE AND HABITABLE AREA.
4. SHOWER & SHOWER TUB UNITS TO BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE OR THE THERMOSTATIC MIXING VALVE TYPE. PROVIDE 1.8 GAL/MIN SHOWER HEADS AND 1.2 GAL/MIN FAUCETS
5. ALL SHOWER ENCLOSURE & DOOR SHALL BE TEMPERED GLASS. DOOR OPENING SHALL HAVE A MIN 22" NET OPENING AND TO SWING OUT.
6. FIBERGLASS TUB SHOWER WALLS SHALL BE INSTALLED OVER A MOISTURE RESISTANT UNDERLAYMENT TO A HEIGHT OF 72 INCHES ABOVE THE DRAIN INLET
7. SAFETY GLAZING IS REQUIRED ON WINDOWS WITHIN TUB OR SHOWER AREA WHEN THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60" ABOVE A STANDING SURFACE AND DRAIN INLET (CBC 2406.4)
8. SHOWER COMPARTMENT MUST HAVE A FINISHED INTERIOR NO LESS THAN 1024 SQUARE INCHES AND CAPABLE OF ENCOMPASSING A 30 INCHES CIRCLE (CFC 441.1)
9. PROVIDE 'DUROCK' OR WONDERBOARD FROM FLOOR TO CEILING ON ALL SHOWER AND TUB AREAS. NO GYPSUM PRODUCTS BEHIND TILE ASSEMBLIES IN WET ENVIRONMENTS PER CRC R102.3.8).
10. ALL PLUMBING FIXTURES FOR BATHROOMS AND KITCHEN SHALL BE I.A.P.M.O. APPROVED.
11. ALL WATER CLOSETS SHALL BE ULTRA FLUSH TOILET. TANKS SHALL HAVE A MAXIMUM CAPACITY OF 1.28 GALLON PER FLUSH (ASSEMBLY BILL #2355)
12. TOILET CLEARANCE MIN 24" IN FRONT OF TOILET AND 15" MINIMUM CENTER OF TOILET TO EACH SIDE (CBC 2904)
13. SOLDER USED IN POTABLE PIPING SHALL NOT CONTAIN MORE THAN 2/10 % LEAD.
14. HOSE BIBS AND FAUCETS SHALL BE EQUIPPED WITH NON REMOVABLE BACKFLOW PREVENTION DEVICE.
15. PROVIDE 18" PLATFORM FOR WATER HEATER AND FURNACE LOCATED IN THE GARAGE. WATER HEATER SHALL BE SECURED IN PLACE WITH 2 SEISMIC STRAPS. STRAPS SHALL BE ANCHORED AT POINTS WITHIN THE UPPER AND LOWER ONE-THIRD OF ITS VERTICAL DIMENSION. THE LOWER ANCHOR STRAP LOCATED TO MAINTAIN A MINIMUM DISTANCE OF 4" ABOVE CONTROLS.
16. PROVIDE WATER HEATER PRESSURE AND TEMPERATURE RELIEF VALVE TERMINATION TO OUTSIDE OF BUILDING (CFC 608.5)
17. NO GAS WATER HEATER OR GAS FURNACE SHALL BE INSTALLED IN BEDROOM, BATHROOM, OR CLOTHES CLOSET (CFC 504.1)
18. PROVIDE CLOTHES DRYER VENT TO OUTSIDE WITH A MAX. LENGTH OF 14' EQUIPPED WITH A BACK-DRAFT DAMPER INCLUDING TWO 90° ELBOWS AND A MINIMUM DIAMETER OF 4" (CMC 504.3)
19. SKYLIGHTS - OPENABLE SKYLIGHTS NEED TO BE 10 FT FROM PLUMBING VENTS OR 3 FT BELOW THE VENT TERMINATION
20. VENTILATION REQUIRED IN THE BATHROOM AND LAUNDRY ROOM. PROVIDE OPENABLE WINDOW AREA W/ 5% OF FLOOR AREA (1.5 SF MIN) OR MECHANICAL VENTILATION (5 AIR CHANGES PER HOUR). THE POINT OF DISCHARGE OF EX-AIR SHALL BE AT LEAST 5FT FROM ANY OPENING INTO THE BUILDING. THE EXHAUST FAN SHALL BE EQUIPPED BACKDRAFT DAMPER TO COMPLY W/ ENERGY REGULATIONS
21. A SECURITY AUTOMATIC SHUT OFF VALVE SHALL BE INSTALLED BETWEEN THE GAS METER AND THE DWELLING AREA.
- 22.A 30" VERTICAL CLEARANCE IS REQUIRED FROM THE TOP OF A COOKING APPLIANCE TO COMBUSTIBLE MATERIALS OR METAL CABINETS. THE MINIMUM HORIZONTAL OR SIDE CLEARANCES SHALL BE SPECIFIED BY A PERMANENT MARKING ON THE COOKING APPLIANCE
- 23.RESIDENTIAL BUILDINGS UNDERGOING PERMITTED ALTERATIONS, ADDITIONS OR IMPROVEMENTS SHALL REPLACE NONCOMPLIANT PLUMBING FIXTURES WITH WATER-CONSERVING PLUMBING FIXTURES. PLUMBING FIXTURE REPLACEMENT IS REQUIRED PRIOR TO ISSUANCE OF CERTIFICATE OF FINAL COMPLETION, CERTIFICATE OF OCCUPANCY OR FINAL PERMIT APPROVAL.

Table 4.303.2 Fixture Flow Rates Mandatory Compliance	
FIXTURE TYPE	MAX FLOW RATE @ 220% REDUCTION FR. BASELINE
SHOWERHEADS	1.8 GPM @20 PSI
LAVATORY FAUCHETS, RESIDENTIAL	1.2 GPM @60 PSI
KITCHEN FAUCHETS	1.5 GPM @60 PSI
GRAVITY TANK-TYPE WC	1.28 GAL/ FLUSH
URINALS	0.5 GAL/ FLUSH

CIVIL CODE SECTION 1101 PLUMBING REQUIREMENTS FOR HOMES CONSTRUCTED PRIOR TO JANUARY 1, 1994:

PRIOR TO FINAL INSPECTION IT IS THE APPLICANT'S RESPONSIBILITY TO REPLACE ALL NON-CONFORMING PLUMBING FIXTURES WATER CONSERVING PLUMBING FIXTURES. NON-COMPLIANT PLUMBING FIXTURES MEAN ANY OF THE FOLLOWING:

- ANY TOILET MANUFACTURED TO USE MORE THAN 1.6 GALLONS OF WATER PER FLUSH.
- ANY SHOWERHEAD MANUFACTURED TO HAVE A FLOW CAPACITY OF MORE THAN 2.05 GALLONS OF WATER PER MINUTE
- ANY INTERIOR FAUCET THAT EMITS MORE THAN 2.2 GALLONS OF WATER PER MINUTE.

BATHROOM VENT TO TERMINATE AT LEAST 3-FEET ABOVE THE HIGHEST POINT WHERE IT PASS THROUGH A ROOF, AND AT LEAST 2-FEET HIGHER THAN ANY PORTION OF THE BUILDING WITHIN A HORIZONTAL DISTANCE OF 10-FEET (CFC 504.5.4).

owner  
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202 ALTURA VISTA,  
LOS ALTOS, CA 95032  
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AA HOME  
DESIGN &  
BUILD LLC

DESIGN  
SERVICES

T: 408.431.2952  
AA.HomeDesignBuild  
@gmail.com

SHEET TITLE

EXISTING +  
PROPOSED 2nd  
FLOOR PLANS

REVISION

- 1
- 2
- 3
- 4

DATE 05.05.21

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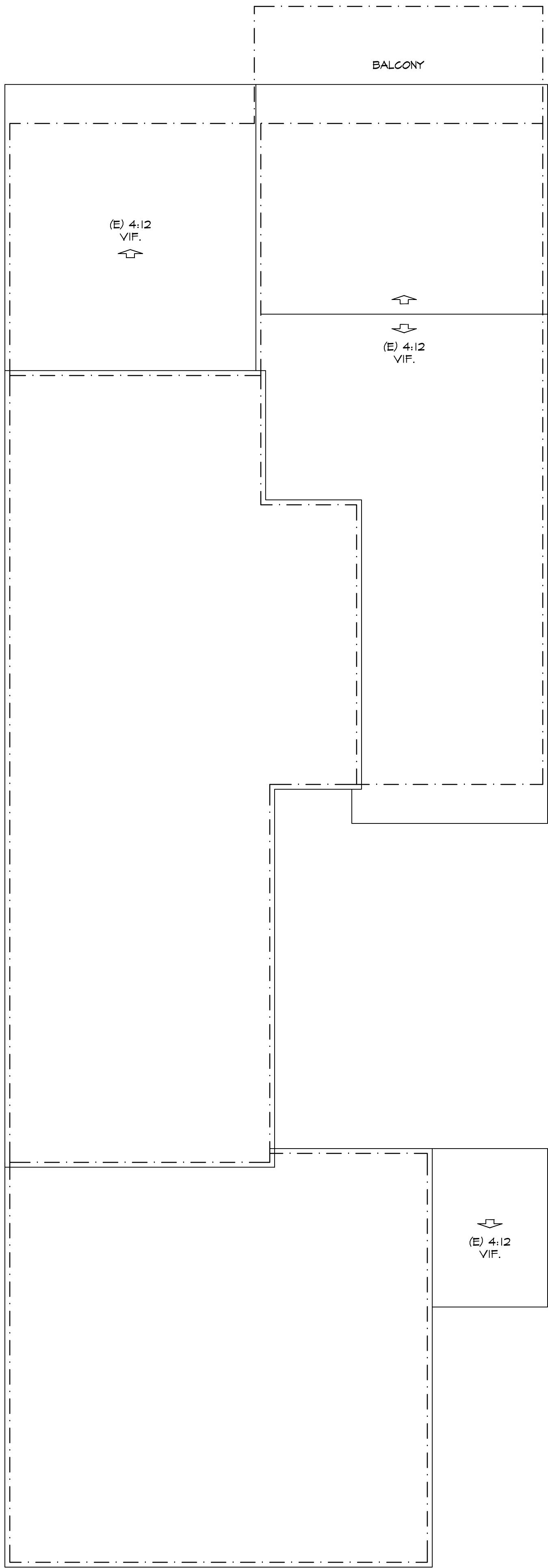
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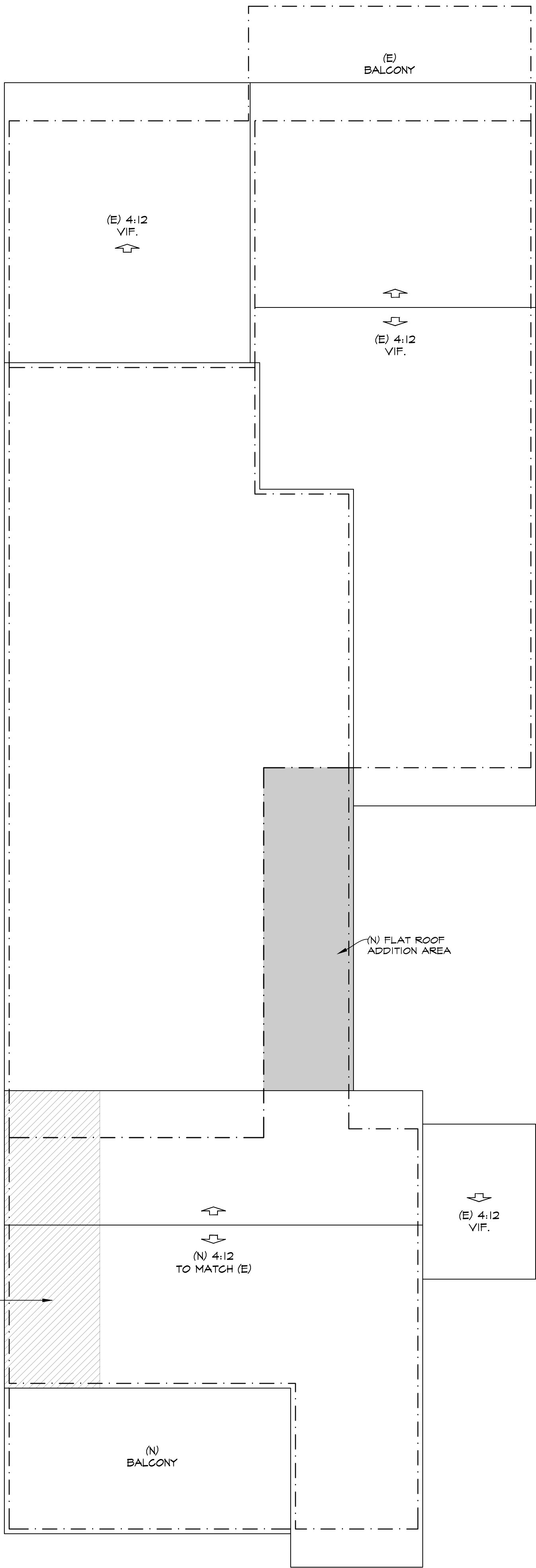
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OF 13 SHEETS





EXISTING ROOF PLAN  
SCALE 1/4" = 1'-0"



PROVIDE 1 HR FIRE RATED  
EAVE AND WALL AT THE  
AREA LESS THAN 5' AWAY  
FROM PROPERTY LINE.  
PROVIDE EYEBROW VENT  
TO REPLACE BLOCK  
VENTS AT THIS AREA, SEE  
DETAILS 8, 12 & 13/A-1 TYP.

PROPOSED ROOF PLAN  
SCALE 1/4" = 1'-0"

**LEGEND & NOTES :**

D.S.  
DOWN SPOUT

SPLASH BLOCK & COBBLESTONES TYP. FOR ALL DOWN SPOUTS TO REDUCE VELOCITY OF ROOF WATERS TO PREVENT EROSION LANDSCAPE AREAS.

RAINFALL LEADERS FROM ROOF GUTTERS SHALL NOT BE PIPED DIRECTLY TO THE STORM DRAIN. THEY SHALL BE CONNECTED TO AN EARTHEN SHALES AND AREA DRAINS) CONNECTED TO THE STORM DRAIN SYSTEM, OR A COMPARABLE METHOD TO EFFECTIVELY REDUCE THE ENTRY OF POLLUTANTS INTO STORM WATER RUNOFF

**VENTING NOTES:**

USE 4 - 2-1/2" DRILLED SCREEDED VENT HOLES AT EACH EAVE BLOCK TO PROVIDE LOW VENTING.

BAFFLE BATT INSULATION TO ALLOW FREE FLOW OF AIR.

**ROOF NOTES:**

FRAMING : CONVENTIONAL ROOF FRAMING  
ROOF PITCH : 4:12  
ROOFING : CLASS A COMP. SHINGLES, UON.  
DECKING : OSB ROOF SHEETING (SEE SHEAR SCHEDULE)  
FASCIA : 2x8 WOOD FASCIA BOARD TYP AT EAVES, PAINTED  
GUTTER & DS: ALUMINUM  
SOFFITS : CLOSED WOOD SOFFIT W/ GALV. METAL SCREENED VENT

ALL DOWN SPOUT TO BE CONNECTED  
TO UNDERGROUND PERFORATED PIPE TO BUBBLE UP  
ON THE LANDSCAPE AREA.

owner  
Shai &  
Iil

## TOWN HOUSE

202 ALTURA VISTA,  
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## ADDITION & REMODEL

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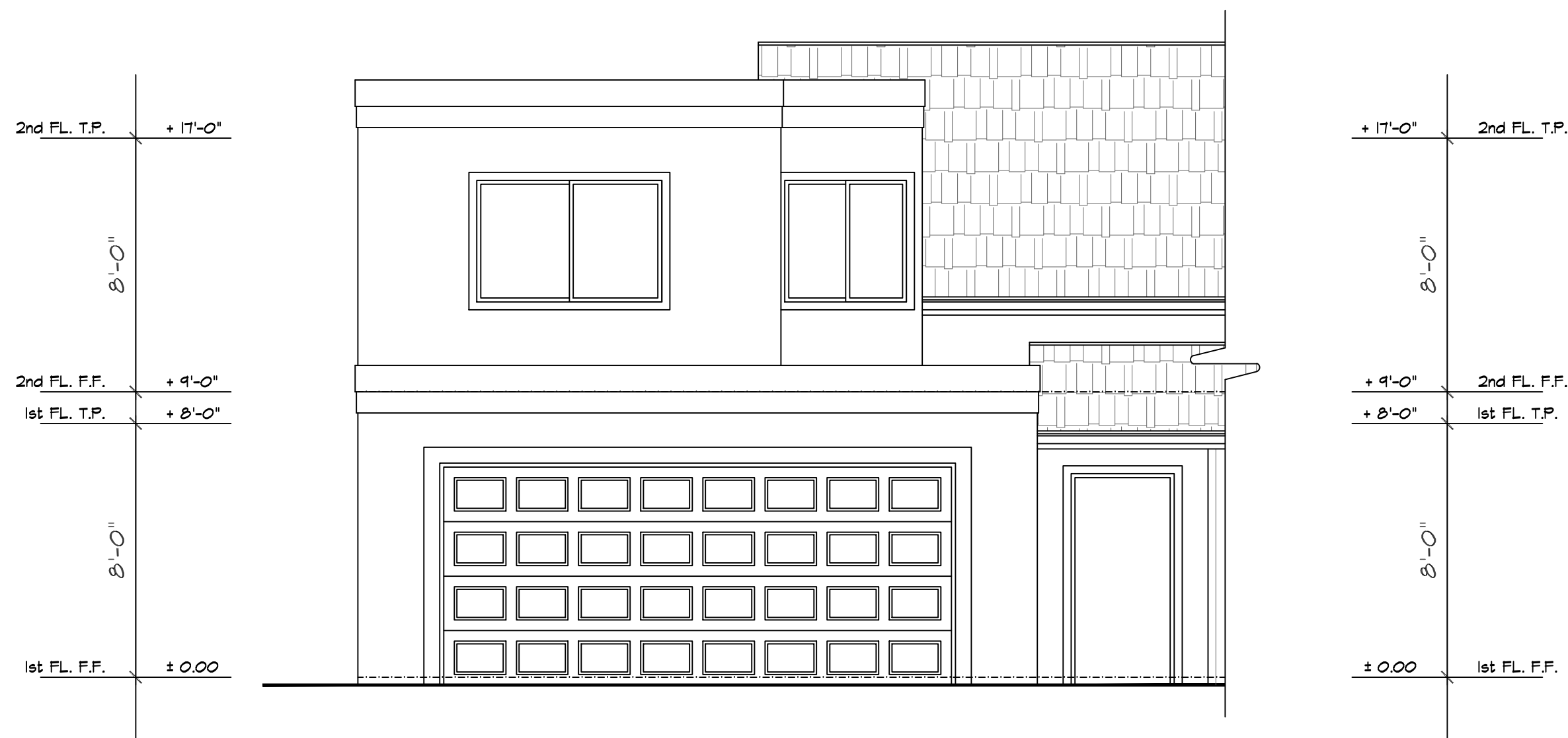
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## EXISTING + PROPOSED ROOF PLANS

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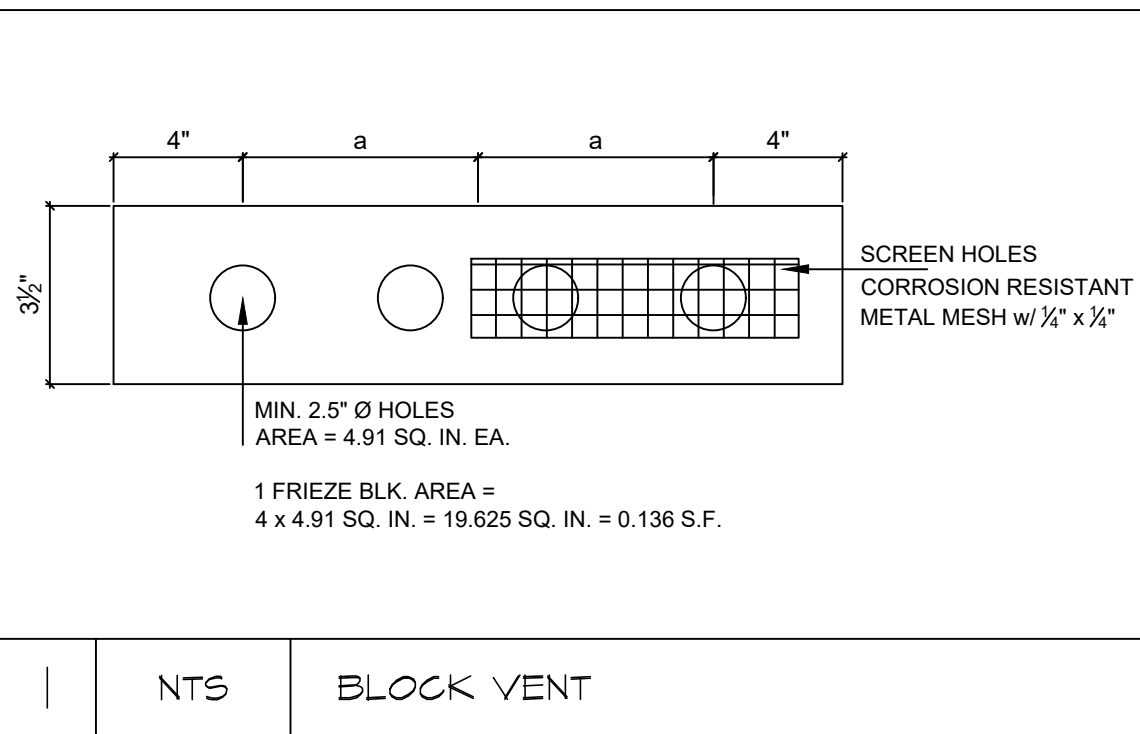


EXISTING FRONT ELEVATION

SCALE 1/4" = 1'-0"

EXTERIOR ELEVATION AND SITE NOTES

1. EXTERIOR WALL: WOOD LAP SIDING O/ 2 LAYERS TYPE D' PAPER O/ PLYWOOD SHEATHING (COLOR & TEXTURE TO MATCH EXISTING)/ROOFING: CLASS A COMP. SHINGLES (COLOR TO MATCH EXISTING)
2. WINDOWS: MILGARD VINYL DUAL PANE WHITE OR SIM. (SEE SCHEDULE)
3. WINDOW TRIM: STUCCO FOAM 2X (COLOR TO MATCH EXISTING)
4. GUTTER: ALUMINUM FASCIA (COLOR TO MATCH EXISTING)
5. FASCIA BOARD: PAINTED (COLOR TO MATCH EXISTING)
6. WALL TO ROOF FLASHING: GALV. METAL PAINTED TO MATCH (E).

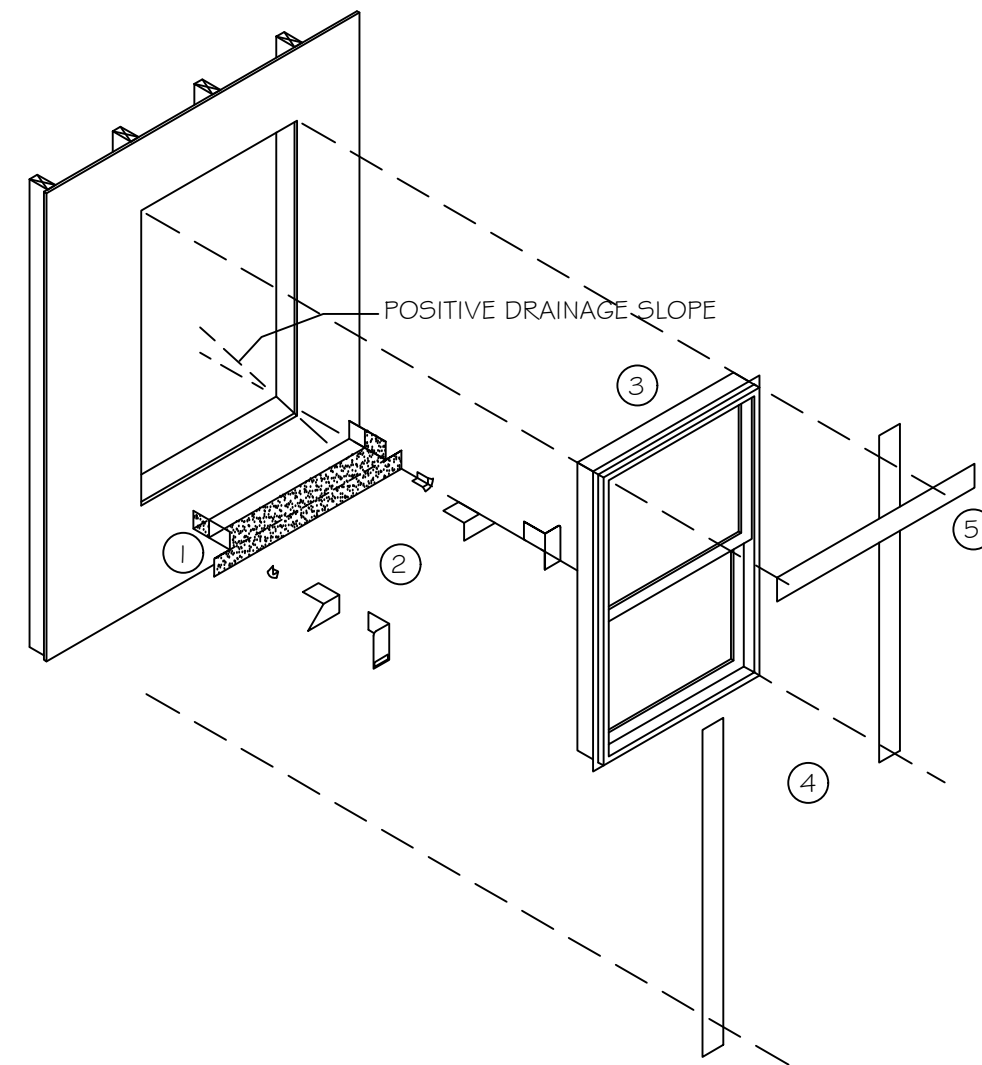


VENT CALCULATIONS	
NOTE: CONTRACTOR TO INSTALL ADDITIONAL VENTS TO COMPENSATE FOR ANY EXISTING VENTS OBSTRUCTED BY THE NEW WORK.  VENT PLACEMENTS SHALL BE EVENLY DISTRIBUTED TO ENCOURAGE CROSS VENTILATION THROUGHOUT.	<u>NEW ATTIC VENT</u> REQUIREMENT 1 SF/150 SF 1 ATTIC VENT 3' x 22" = .156 SF 3" WIDE CEILING VENT -> 36 SQINCH : 144 = .25 SF PER 1FT'
	(N) ROOF ATTIC AREA: 417 SF 417 : 150 = 2.78 2.78 : .156 = 20.44 -> USE MIN. 24 BLOCK VENTS
	OPTIONAL: USE 3" WIDE CEILING VENT ALONG OVERHANG PERIMETER

PAN FLASHING INSTALLATION

1. INSTALL FLEXIBLE PAN FLASHING TO COVER THE SLOPED SILL/THRESHOLD, 3-INCHES OF FACE OF WALL, AND 3-INCHES OF EACH JAMB.
2. INSTALL CORNER FLASHINGS
3. INSTALL WINDOW/DOOR UNIT
4. INSTALL FLASHING COVERING FLANGE AND WALL ALONG EACH JAMB AND 3-INCHES ABOVE THE HEAD AND BELOW THE SILL/THRESHOLD
5. INSTALL FLASHING COVERING A MINIMUM OF 3-INCHES OF THE WALL FACE AT THE HEAD AND JAMBS.
6. FOLD AND ADHERE SILL/THRESHOLD PAN LEG ONTO INTERIOR FACE OF FRAME, NOT SHOWN. PROTECT LEG FROM DAMAGE UNTIL THE INTERIOR TRIM OR FINISH IS INSTALLED.

NOTE: SURFACES RECEIVING FLASHING SHALL BE FREE OF IRREGULARITIES. APPLY SEALANT/ADHESIVE TO CLEAN AND DRY SURFACES RECEIVING FLASHING. LIQUID ADHESIVE SHALL BE COMPATIBLE WITH SUBSTRATE AND MEET CALGREEN VOC REQUIREMENTS.



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REMODEL

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SERVICES

T: 408.431.2952  
AA.HomeDesignBuild@gmail.com

SHEET TITLE

ELEVATIONS  
+ SECTION

REVISION

- 1
- 2
- 3
- 4

DATE 05.05.21

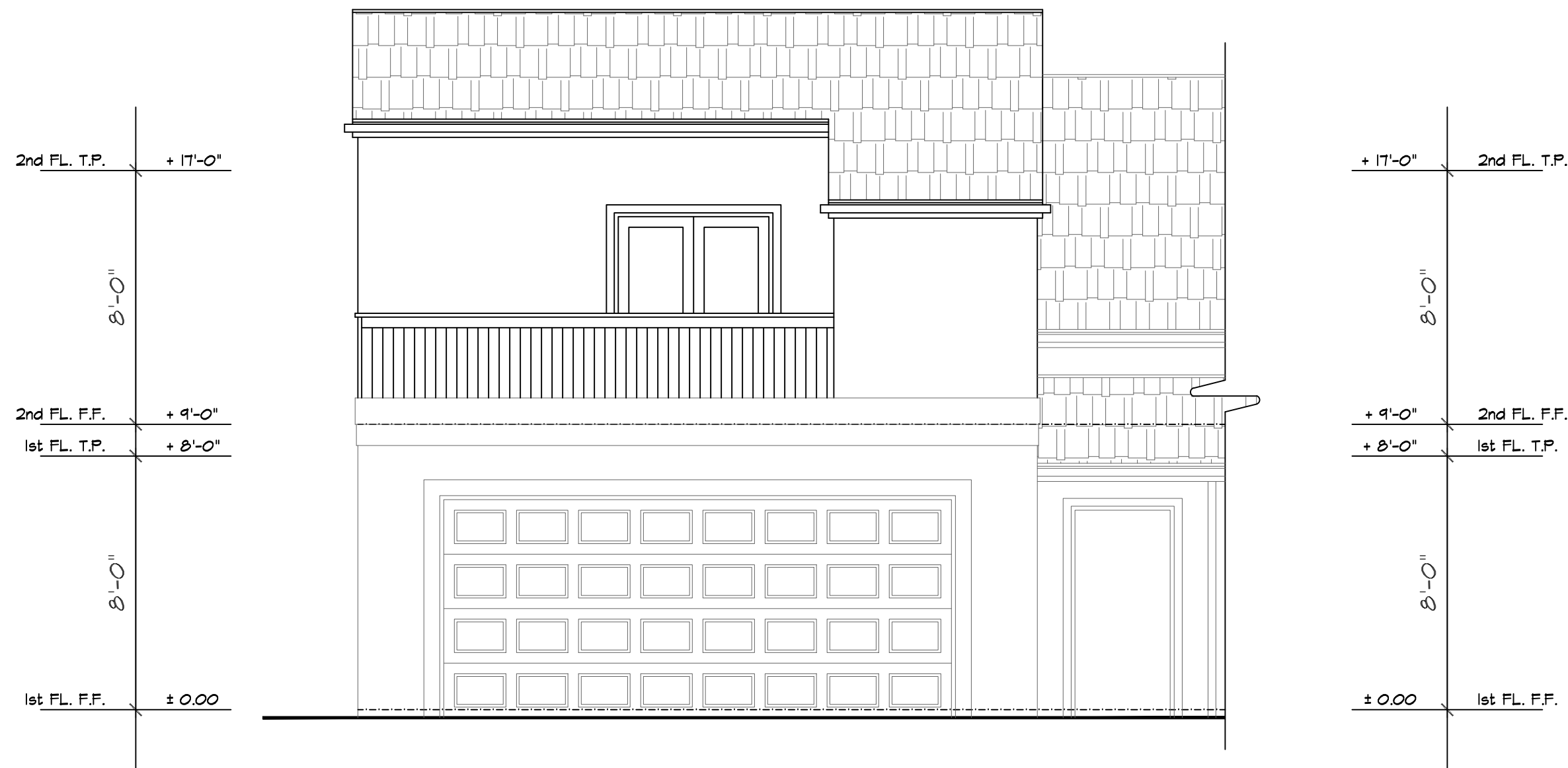
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SCALE AS SHOWN

SHEET

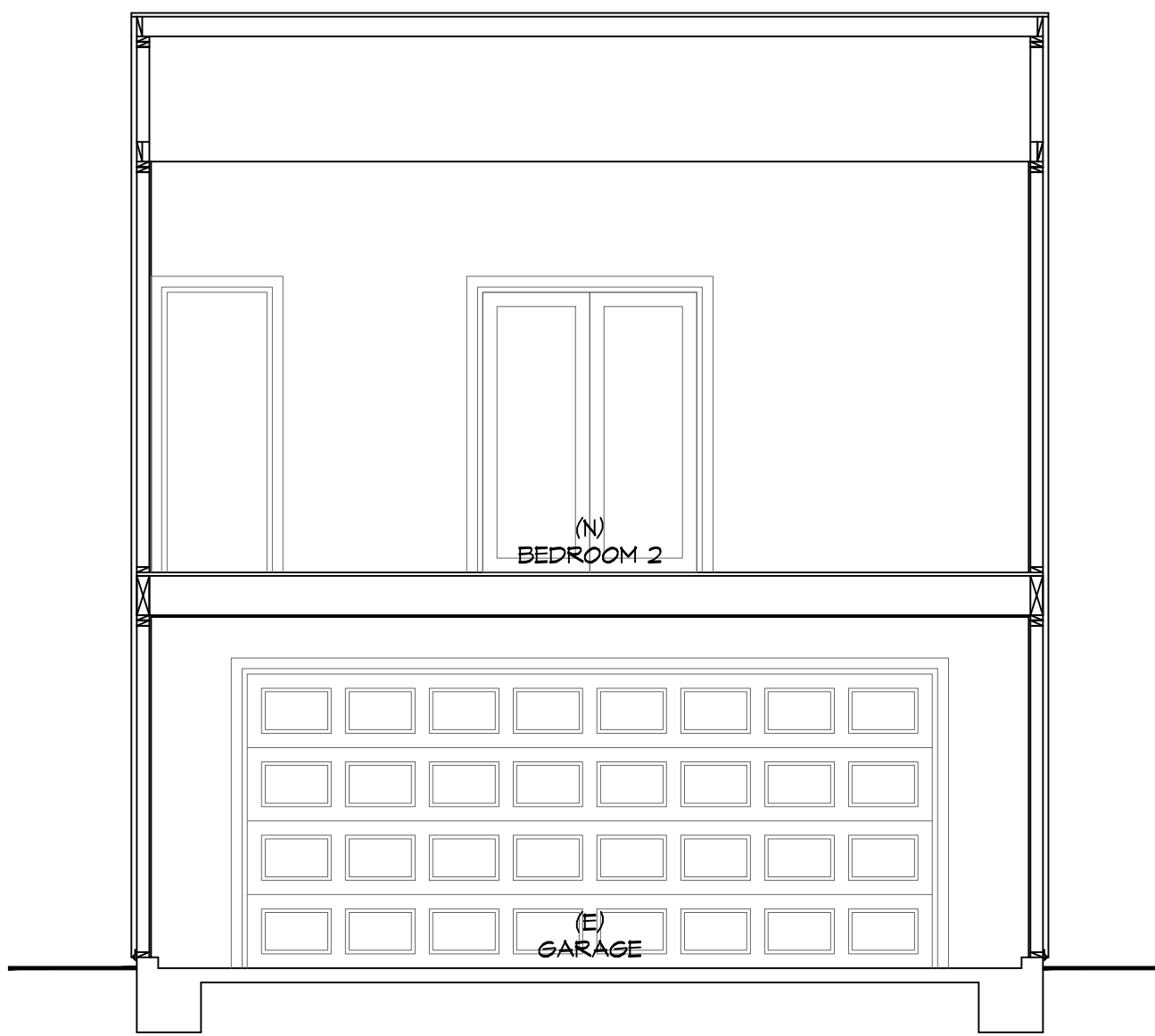
A-5

OF 13 SHEETS



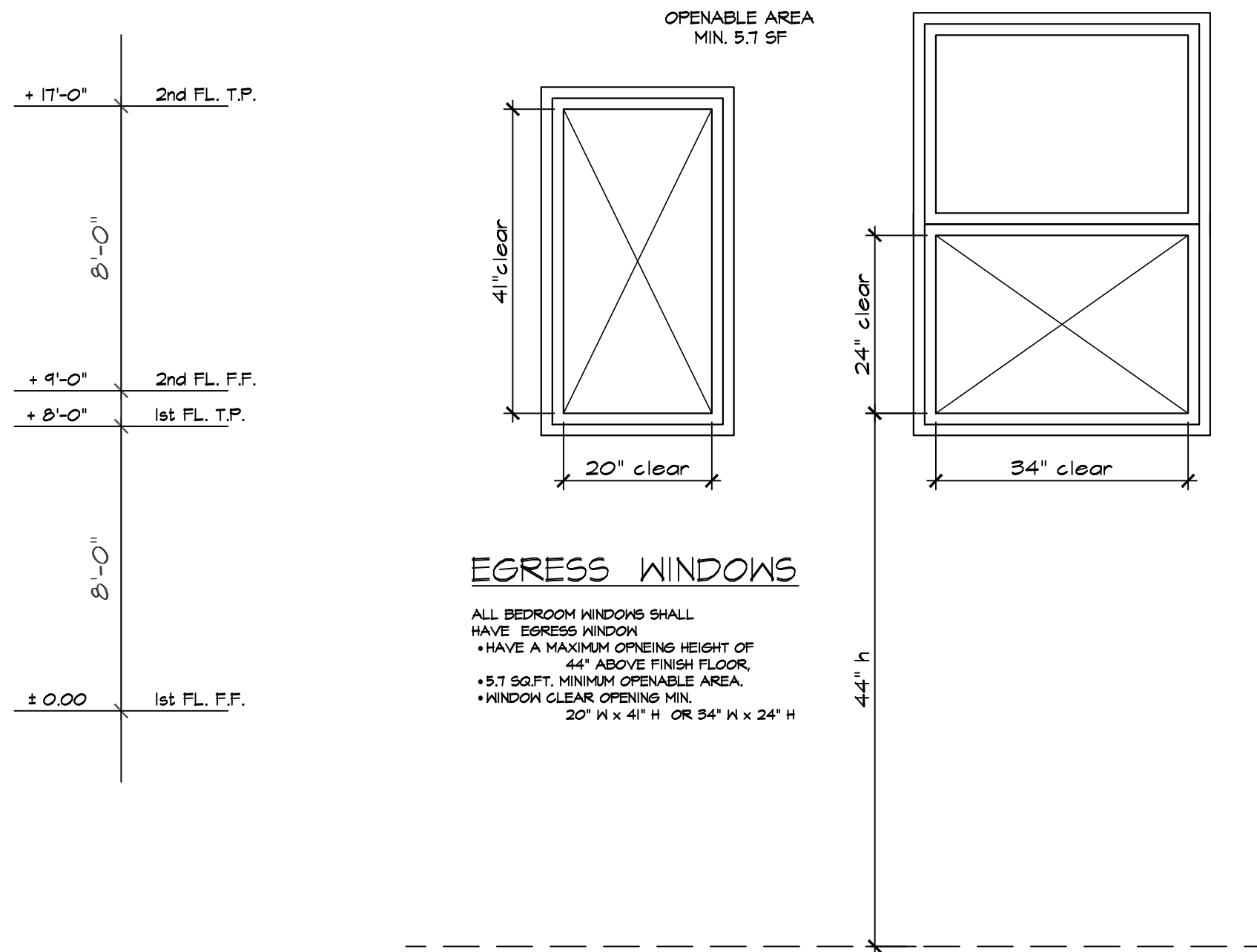
EXISTING FRONT ELEVATION

SCALE 1/4" = 1'-0"



SECTION A-A

SCALE 1/4" = 1'-0"



EGRESS WINDOWS

- ALL BEDROOM WINDOWS SHALL HAVE EGRESS WINDOW
- HAVE A MAXIMUM OPENING HEIGHT OF 44" ABOVE FINISH FLOOR.
  - 5.7 SQ.FT. MINIMUM OPENABLE AREA.
  - WINDOW CLEAR OPENING MIN. 20" W x 41" H OR 34" W x 24" H



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SHEET TITLE

ELEVATIONS

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1  
2  
3  
4

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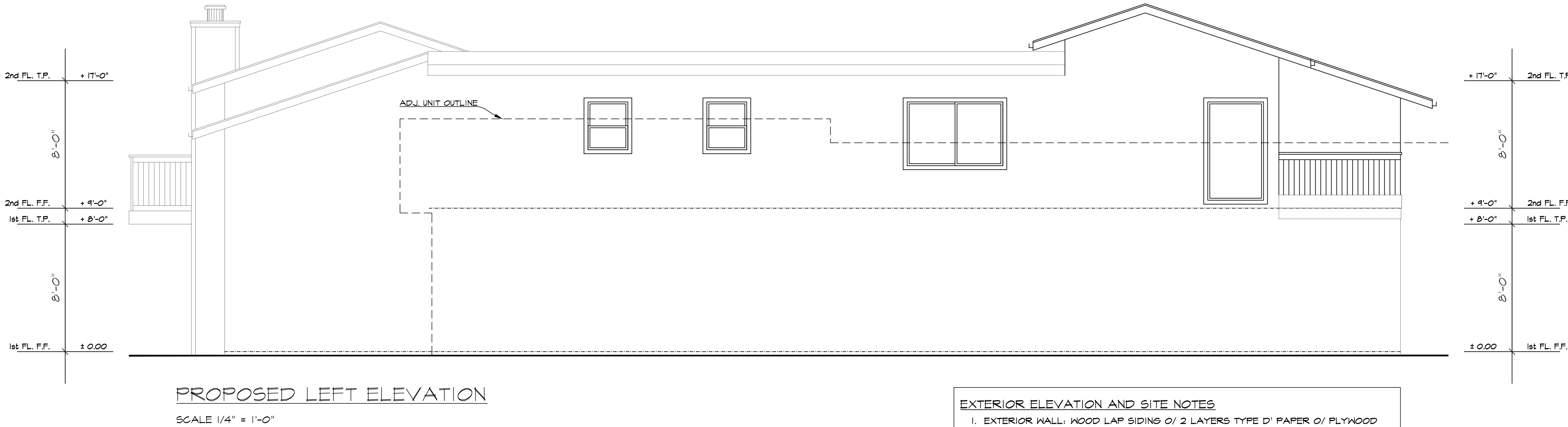
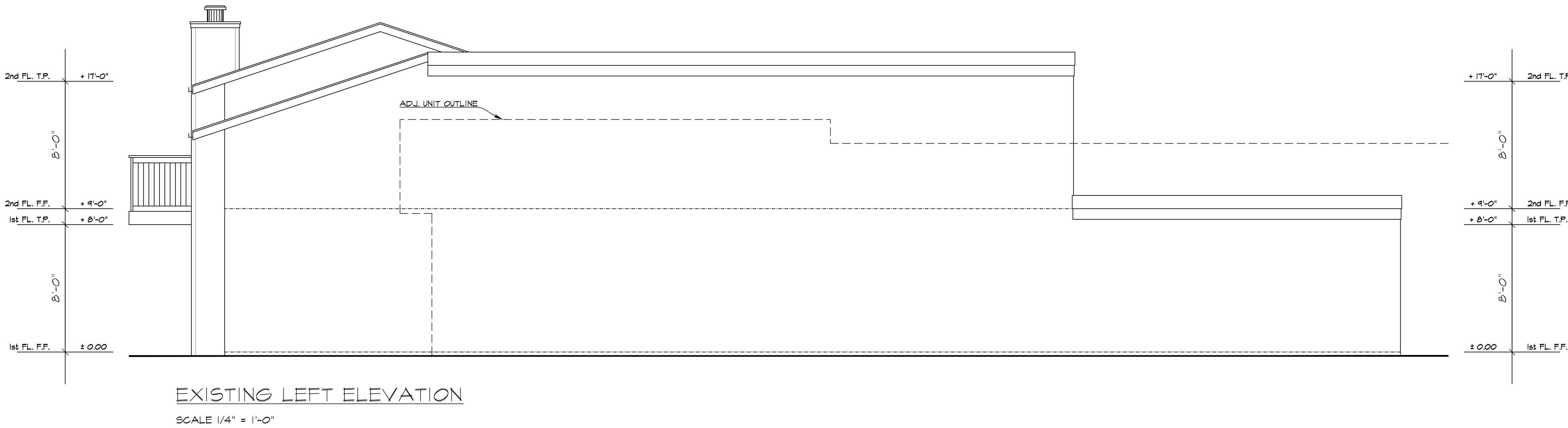
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SCALE AS SHOWN

SHEET

A-6

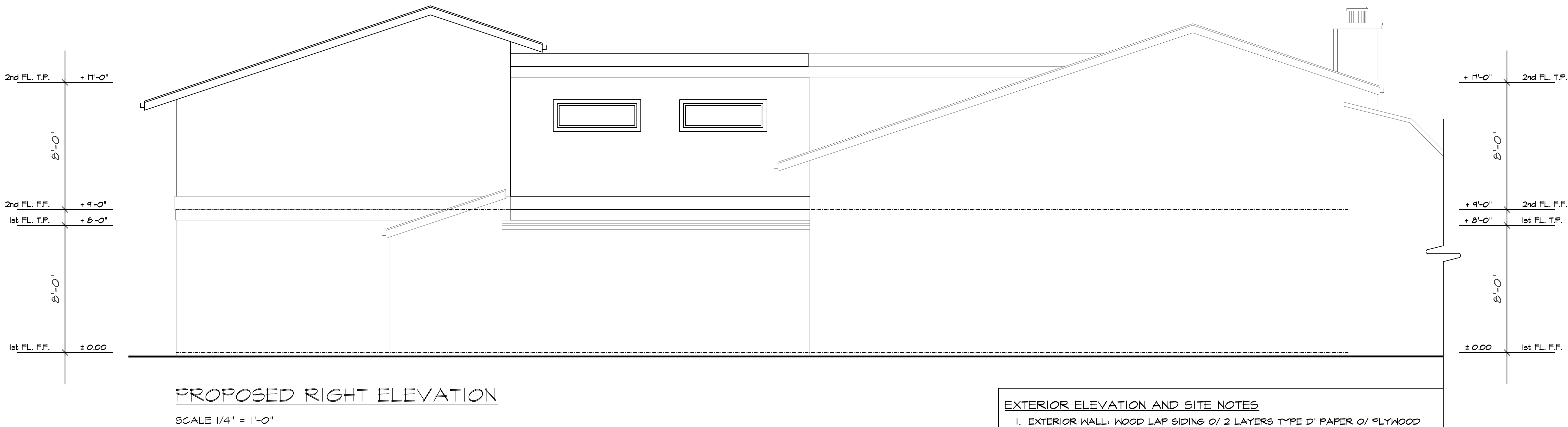
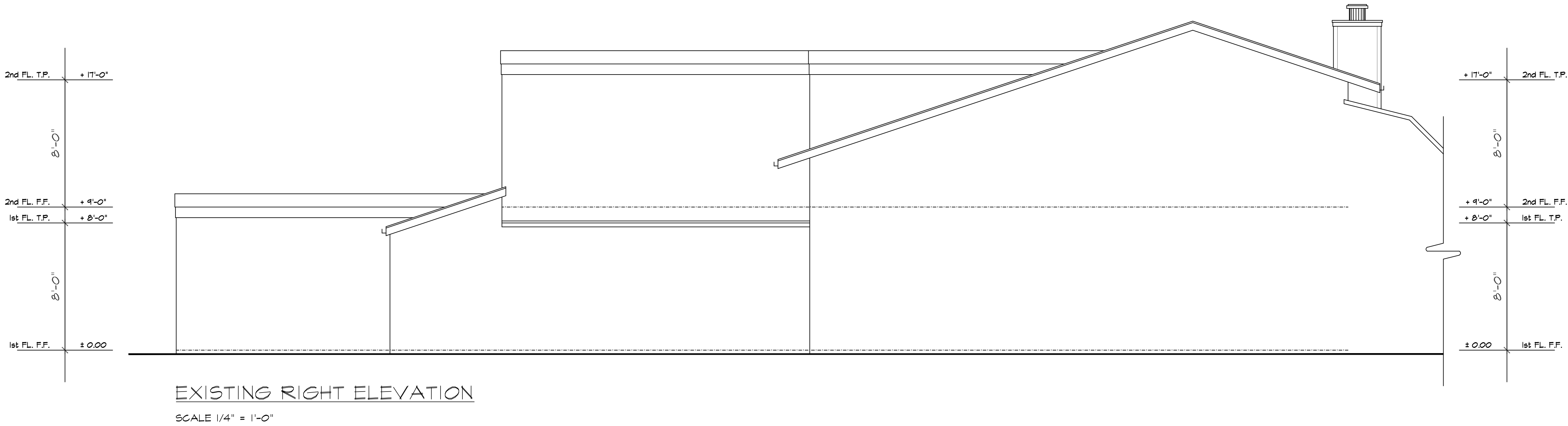
OF 13 SHEETS



EXTERIOR ELEVATION AND SITE NOTES

1. EXTERIOR WALL: WOOD LAP SIDING O/ 2 LAYERS TYPE D' PAPER O/ PLYWOOD SHEATHING (COLOR & TEXTURE TO MATCH EXISTING)/ROOFING: CLASS A COMP. SHINGLES (COLOR TO MATCH EXISTING)
2. WINDOWS: MILGARD VINYL DUAL PANE WHITE OR SIM. (SEE SCHEDULE)
3. WINDOW TRIM: STUCCO FOAM 2X (COLOR TO MATCH EXISTING)
4. GUTTER: ALUMINUM FASCIA (COLOR TO MATCH EXISTING)
5. FASCIA BOARD: PAINTED (COLOR TO MATCH EXISTING)
6. WALL TO ROOF FLASHING: GALV. METAL PAINTED TO MATCH EXISTING





- EXTERIOR ELEVATION AND SITE NOTES**
1. EXTERIOR WALL: WOOD LAP SIDING O/ 2 LAYERS TYPE D' PAPER O/ PLYWOOD SHEATHING (COLOR & TEXTURE TO MATCH EXISTING/ROOFING; CLASS A COMP. SHINGLES (COLOR TO MATCH EXISTING)
  2. WINDOWS: MILGARD VINYL DUAL PANE WHITE OR SIM. (SEE SCHEDULE)
  3. WINDOW TRIM: STUCCO FOAM 2X (COLOR TO MATCH EXISTING)
  4. GUTTER: ALUMINUM FASCIA (COLOR TO MATCH EXISTING)
  5. FASCIA BOARD: PAINTED (COLOR TO MATCH EXISTING)
  6. WALL TO ROOF FLASHING: GALV. METAL PAINTED TO MATCH EXISTING

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202 ALTURA VISTA,  
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SERVICES

T: 408.431.2952  
AA.HomeDesignBuild  
@gmail.com

SHEET TITLE

ELEVATIONS

REVISION

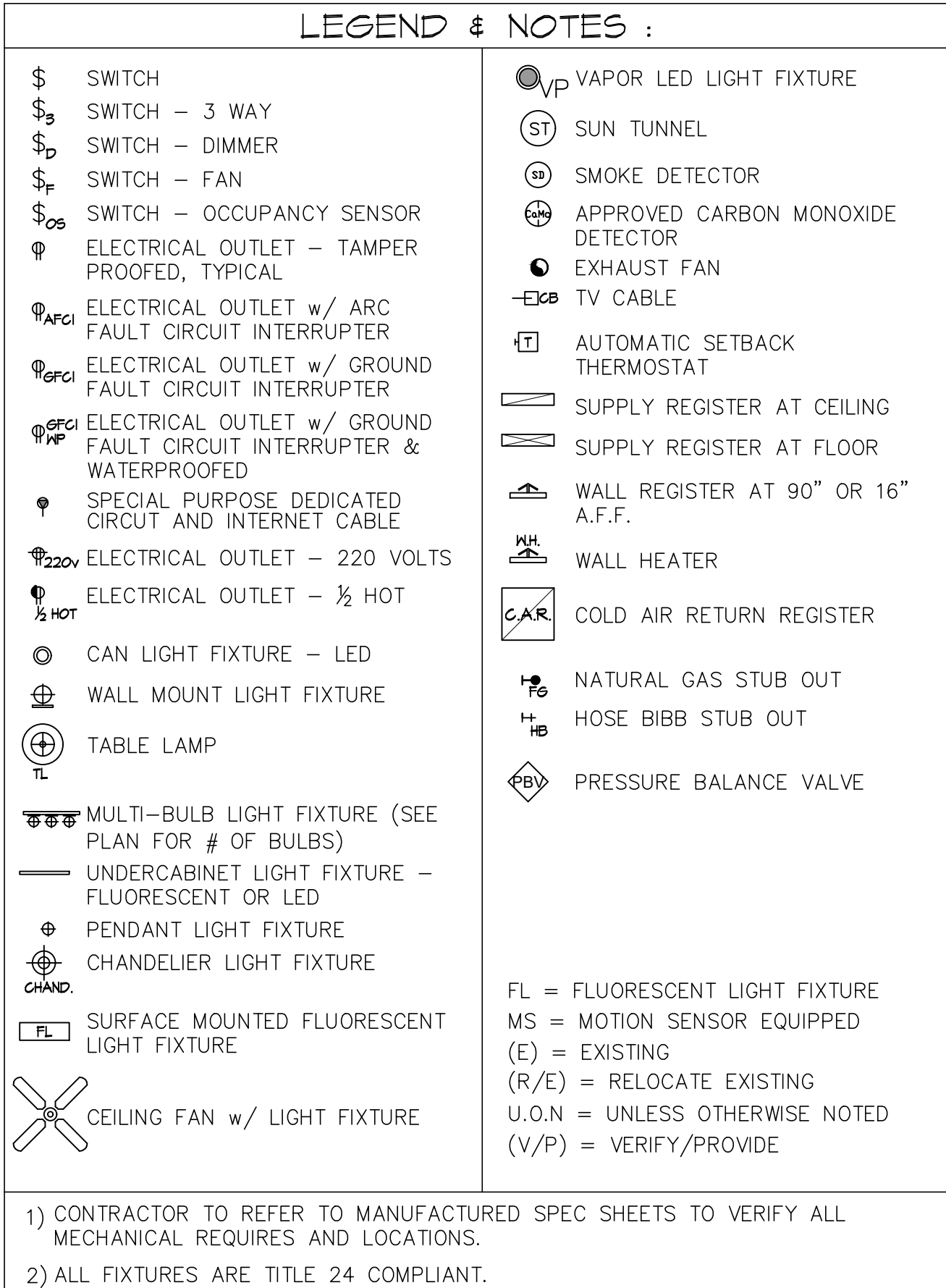
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DATE 05.05.21  
DRAWN AA  
SCALE AS SHOWN  
SHEET

A-7

OF 13 SHEETS





CALGREEN 2019 MANDATORY MEASURES:

4.304.1 AUTOMATIC IRRIGATION SYSTEM CONTROLLERS FOR LANDSCAPING SHALL BE WEATHER BASED INSTALL LANDSCAPE AUTOMATIC IRRIGATION SYSTEM CONTROLLERS, BRAND IRRITOL SDB600 IN OR EQUIVALENT, HMBG (WEATHER BASED IRRIGATION CONTROL SYSTEM) OR EQUIVALENT - SMART WATER APPLICATION TECHNOLOGY.

4.406.1 JOINTS AND OPENINGS: ANNUAL SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS OR OTHER OPENINGS IN PLATES AT EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS WITH GEMENT MORTAR, CONCRETE MASONRY OR SIMILAR METHOD ACCEPTABLE TO THE ENFORCING AGENCY.

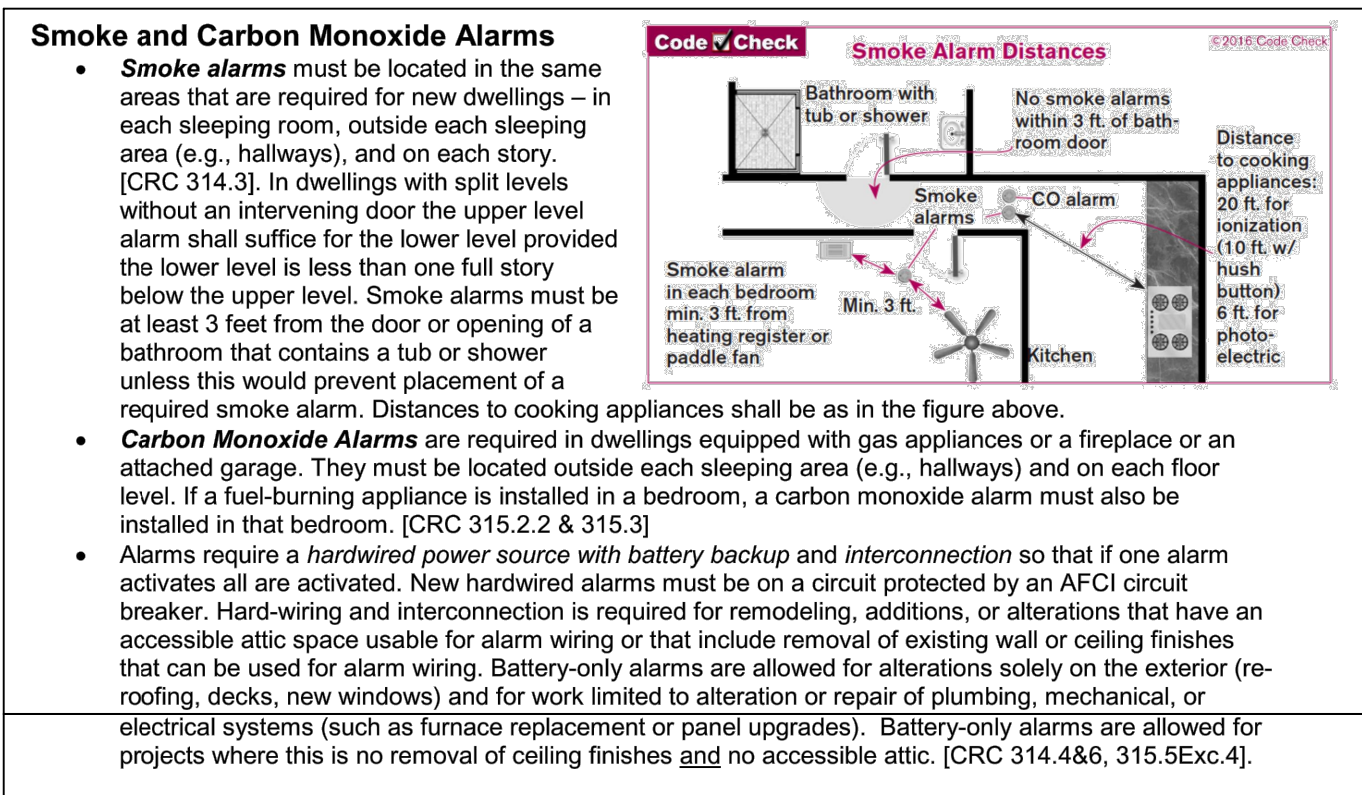
4.503.1 INSTALLED GAS FIREPLACE SHALL BE A DIRECT-VENT SEALED-COMBUSTION TYPE. HEATILATOR GAS FIREPLACE ANSI Z21.89 MODEL NDB360 T/R/ DV DIRECT VENT, SEALED COMBUSTION TYPE, NO CHIMNEY OR SIMILAR TO.

4.504.1 DUCT OPENINGS AND OTHER RELATIVE AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED DURING CONSTRUCTION.

4.506.1 EXHAUST FANS WHICH TERMINATE OUTSIDE THE BUILDING ARE PROVIDED IN EVERY BATHROOM.

4.507.1 WHOLE HOUSE EXHAUST FANS, N/A IN THIS PROJECT.  
-BUILD IT GREEN POINT RATED SINGLE FAMILY CHECKLIST H.9.C : MECHANICAL VENTILATION SYSTEM FOR COOLING AUTOMATICALLY CONTROLLED INTEGRATED SYSTEM WITH VARIABLE SPEED CONTROL, AN INTEGRATED VENTILATION COOLING SYSTEMS WITH HEATING AND COOLING EQUIPMENT TO DELIVER OUTDOOR AIR ("ECONOMIZER").

4.507.2 HVAC SYSTEM SHALL BE SIZED, DESIGNED & HAVE THEIR EQUIPMENT SELECTED USING METHOD ACCA MANUAL J, D, & S OR ASHRAE HANDBOOKS OR OTHER EQUIVALENT DESIGN SOFTWARE METHODS.  
HEAT LOSS & GAIN ACCORDING TO ACCA MANUAL J DUCT SYSTEMS ARE SIZED ACCORDING ACCA MANUAL D. SELECT HEATING & COOLING EQUIPMENT ACCORDING ACCA 36-S MANUAL S.



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LOS ALTOS, CA 95032

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PROJECT

AA HOME  
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T: 408.431.2952  
AA.HomeDesignBuild  
@gmail.com

## ELEVATIONS

A-8



<div><div>GA FILE NO. WP 3239</div><div>PROPRIETARY*</div><div>1 HOUR FIRE</div><div>50 to 54 STC SOUND</div></div> <div><div>GYPSUM WALLBOARD, WOOD STUDS</div><div>One layer 5/8" proprietary type X gypsum wallboard or gypsum veneer base applied parallel or at right angles to each side of 2 x 4 wood studs 16" o.c. with 17/8" long, 6d cement coated nails 7" o.c. Vertical joints centered over studs and staggered one stud cavity on opposite sides. Horizontal joints on opposite sides need not be staggered or backed. (LOAD-BEARING)</div><div>Sound tested with resilient channels 16" o.c. on ONE SIDE, 3 1/2" glass fiber insulation and a double layer of 5/8" proprietary type X gypsum wallboard applied to resilient channels with screws spaced 12 o.c.</div><div><div>PROPRIETARY GYPSUM BOARD</div><div>United States Gypsum Company</div><div>5/8" SHEETROCK® Brand UltraLight Panels FIRECODE® X</div></div><div><div>Thickness:</div><div>4 3/4" (Fire)</div><div>5 5/8" (Sound)</div><div>Approx. Weight:</div><div>7 psf</div><div>Fire Test:</div><div>UL R1319, 10CA37600, 12-3-10, UL Design U327</div><div>Sound Test:</div><div>RAL TL11-174, 5-23-11</div></div></div>	<div><div>0' HAGIN VENTS 1 AT ROOF BOTTOM &amp; 1 AT ROOF TOP</div><div>BAFFLE TO PREVENT INSULATION BLOCK THE AIR FREE FLOW. 1" MIN AIR SPACE BETWEEN INSUL. AND ROOF SHEATHING</div><div>1 BLK VENT FOR EVERY 3rd BAY FOR MANUF. TRUSS, SEE BLOCK VENT DETAIL ON SHEET A-5</div><div>CONCRETE/ COMP. SHINGLES 6/ 30# FELT 6/ 1/2" RADIANT BARRIER PLYWD. SHTG</div><div>CONTINUOUS WOOD FASCIA</div><div>CONTINUOUS, SELF-FLASHING, PAINTED GALV. MTL., 5" GUTTER W/ DOWNSPOUT</div><div>5/8 GYP. BD. TYPE X</div><div>7/8 STUCCO (SEE ROOF PLAN)</div><div>WOOD LAP SIDINGS OVER 2 LAYERS "D" BLDG. PAPER</div><div>H = 3" HIGH U.N.O. TO MATCH MANUF. TRUSS MEMBER</div><div>R15 INSULATION</div><div>GYP.BD. &amp; PLASTER</div></div> <div>THIS DETAIL IS FOR EAVE LESS THAN 5 FEET FROM PROPERTY LINE</div>	<div><div>DRYWALL</div><div>1/2" GYP. BOARD</div><div>WALL INSULATION</div><div>INTERIOR FINISH</div><div>HEADER</div><div>WOOD LAP SIDINGS OVER 2 LAYERS "D" PAPER OVER 1/2" CDX PLYWD</div><div>CDX PLYWD SHEATHING SEE STRUCTURAL DWG.</div><div>4" WOOD TRIM</div><div>J MOLD</div><div>CAULKING</div><div>WINDOW UNIT</div></div>	<div><div>DRYWALL</div><div>1/2" GYPSUM BOARD</div><div>INTERIOR FINISH</div><div>WALL INSULATION</div><div>EXTERIOR FINISH :</div><div>WOOD LAP SIDINGS</div><div>WP MEMBRANE : 2 LAYERS GRADE "D" BLDG. PAPER</div><div>2x STUDS @ 16" O.C. STAGGERED</div><div>1/2" OSB/CDX PLYWD SEE STRUCTURAL DWG.</div></div>	<div>owner</div> <div>Shai &amp; Ili</div>
12   1 HR FIRE RATED INTERIOR WALL TYP.	8   1 HR FIRE RATED EAVE	5   WINDOW HEAD TRIM	1   TYPICAL STUCCO WALL	
<div><div>GA FILE NO. RC 2602</div><div>GENERIC</div><div>1 HOUR FIRE</div></div> <div><div>WOOD TRUSSES, GYPSUM WALLBOARD</div><div>Base layer 5/8" type X gypsum wallboard applied at right angles to wood roof trusses 24" o.c. with 1 1/4" Type W or S drywall screws 24" o.c. Face layer 5/8" type X gypsum wallboard or gypsum veneer base applied at right angles to trusses with 1 7/8" Type W or S drywall screws 12" o.c. at joints and intermediate trusses and 1 1/2" Type G drywall screws 12" o.c. placed 2" back on either side of end joints. Joints offset 24" from base layer joints. Wood trusses supporting 1/2" wood structural panels applied at right angles to trusses with 8d nails. Appropriate roof covering. Ceiling provides one hour fire resistance protection for trusses.</div><div><div>Approx. Ceiling Weight:</div><div>5 psf</div><div>Fire Test:</div><div>FM FC 172, 2-25-72; ITS, 8-6-98</div></div></div>	<div><div>VAPOR BARRIER (OPTIONAL)</div><div>BAFFLE TO PREVENT INSULATION BLOCK THE AIR FREE FLOW. 1" MIN AIR SPACE BETWEEN INSUL. AND ROOF SHEATHING</div><div>2 FRIEZE BLKS FOR EVERY 3rd VENT FOR MANUF. TRUSS</div><div>COMPOSITION SHINGLES 6/ 30# FELT 6/ 1/2" PLYWD. SHEATHING</div><div>CONTINUOUS WOOD FASCIA</div><div>CONTINUOUS, SELF-FLASHING, PAINTED GALV. MTL., 5" GUTTER W/ DOWNSPOUT</div><div>CONTINUOUS G.S.M. SOFFIT VENT, 3" WIDE W/ INSECT SCREEN BEHIND</div><div>WOOD LAP SIDINGS OVER 2 LAYERS "GRADE D" BLDG. PAPER</div><div>H = 3" HIGH U.N.O. TO MATCH MANUF. TRUSS MEMBER</div><div>ATTIC INSULATION</div><div>WALL INSULATION</div><div>GYP.BD. &amp; PLASTER</div></div>	<div><div>WINDOW UNIT</div><div>2X WINDOW TRIM</div><div>1/2" GYP. BOARD</div><div>CAULKING</div><div>LAP WINDOW FLASHING BEHIND NAILING FLANGE</div><div>4" WOOD TRIM</div><div>WOOD LAP SIDINGS PAINTED</div></div>	<div><div>3 1/2" MIN</div><div>WOOD LAP SIDINGS OVER 2 LAYERS "D" PAPER OVER 1/2" CDX PLYWD</div><div>2x4 STUDS @16"O.C. (TYP)</div><div>26 GA. WEEP SCREED RUST PROOF 8" MIN. ABOVE EARTH 2" MIN. ABOVE PAVED AREAS</div><div>FINISH GRADE 5% SLOPE AWAY FROM BUILDING MIN. 5'</div><div>8" min</div><div>CONCRETE SLAB</div><div>BASE BD</div><div>P.T. SILL FL. OR FNDTN. GRADE ROWD</div><div>SEE STRUCTURAL DWG.</div></div>	
13   1 HR FIRE RATED CEILING/ ROOF TYP.	9   TYPICAL EVE	6   WINDOW JAMB TRIM	2   STUCCO WEEP SCREED	<div>202 ALTURA VISTA, LOS ALTOS, CA 95032</div> <div>PROJECT</div> <div>ADDITION &amp; REMODEL</div> <div>AA HOME DESIGN &amp; BUILD LLC</div> <div>DESIGN SERVICES</div> <div>T: 408.431.2952</div> <div>AA.HomeDesignBuild@gmail.com</div>
	<div><div>ACOUSTIC SEALANT = LATEX RUBBER COMPOUND OR APPROVED FIRE SAVING IF 1 HR WALL OCCURS, @ ELECT. BOX PADS</div><div>EL. OUTLET ON THE OPPOSITE OF WALL</div><div>MIN 24" IN SEPARATION</div><div>1 HR WALL</div></div>	<div><div>2x10 BLKG OR 3/8"x12" CDX PLYWOOD TO RECEIVE 15LB. FELT PAPER. TAKE FELT UP &amp; OVER OVER BACK SIDE</div><div>TILE 6/ 1" MORTAR &amp; LATH 6/ 15LB. FELT 6/ CEMENTITIOUS WP BOARD, HARDIE BACKER OR WONDER BD OVER 2x4 STUDS TO A MINIMUM 70" ABOVE DRAIN INLET</div><div>CURB / DAM</div><div>TILE 6/ MIN. 1" MORTAR &amp; LATH 6/ 3 LAYERS 6/ #15 FELT 6/ SHOWER PANL, CURBS &amp; CORNERS LAP &amp; OVERLAP CORNERS, SECURELY HOT MOP EACH LAYER THOROUGHLY AND DO NOT PUNCTURE OR NAIL BELOW THE CURB HEIGHT</div><div>2 - 2x6 PT. DF. ON EDGE</div><div>WEEP HOLES</div><div>1/4" / 1" SLOPE</div><div>SEE STRUCTURE DWGS. FOR FLR. FRAMING &amp; FLR. SHTG.</div></div>		
	10   ELECTRICAL OUTLET	7   TILE SHOWER on WOOD		
	<div><div>STANDARD OUTLETS</div><div>BATH OUTLETS</div><div>KITCHEN OUTLETS</div><div>REFRIG. OR UTILITY OUTLET</div><div>TYPICAL WALL SWITCH</div><div>15"</div><div>45"</div><div>32"-34"</div><div>48"</div><div>30"</div><div>42" @ UTILITY</div><div>60" @ REFRIG.</div><div>38"</div><div>21 1/2"</div><div>A.F.F. ± 0.00</div><div>A.F.F. ± 0.00</div><div>A.F.F. ± 0.00</div><div>A.F.F. ± 0.00</div><div>A.F.F. ± 0.00</div><div>A.F.F. ± 0.00</div><div>OUTLET OR SWITCH AT SIDE OF CABINET</div></div>	<div><div>1/2" GYPSUM BOARD W/ INTERIOR FINISH</div><div>WATERPROOF MEMBRANE</div><div>TILE BACKER W/ SMOOTH FINISH ABOVE TILE</div><div>TOP OF TILE AS OCCURS,MIN 7" AFF TYP. U.N.O.</div><div>CERAMIC TILE OVER 1/2" HARDIE BACKER BD. TAPE AND PREPARE ALL JOINTS &amp; UNTILED SURFACES PER MANUFACTURER'S INSTRUCTIONS</div><div>2x4 STUDS @ 16" O.C. IF PLUMBING OCCURS 2x6 STUDS @ 16" O.C.</div></div>		
	11   ELECTRICAL FIXTURE HT.	4   SHOWER – WALL TILE WATER PROOFING		

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202 ALTURA VISTA, LOS ALTOS, CA 95032

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AA HOME DESIGN & BUILD LLC

DESIGN SERVICES

T: 408.431.2952

AA.HomeDesignBuild@gmail.com

SHEET TITLE

ARCHITECTURAL STANDARD DETAILS

REVISION

1

2

3

4

DATE

05.05.21

DRAWN

AA

SCALE

AS SHOWN

SHEET

A-14

OF 13 SHEETS



CERTIFICATE OF COMPLIANCE  
Project Name: Altura Vista Addition  
Calculation Description: Title 24 Analysis

Calculation Date/Time: 2021-04-20T13:15:05-07:00  
Input File Name: Altura Vista Addition (2021).rbd19x

CF1R-PRF-01E  
(Page 1 of 10)

GENERAL INFORMATION

01	Project Name	Altura Vista Addition									
02	Run Title	Title 24 Analysis									
03	Project Location	202 Altura Vista									
04	City	Los Gatos	05	Standards Version	2019						
06	Zip code	95032	07	Software Version	EnergyPro 8.2						
08	Climate Zone	4	09	Front Orientation (deg/ Cardinal)	0						
10	Building Type	Single family	11	Number of Dwelling Units	1						
12	Project Scope	Alteration	13	Number of Bedrooms	3						
14	Addition Cond. Floor Area (ft²)	417	15	Number of Stories	1.3						
16	Existing Cond. Floor Area (ft²)	1108	17	Fenestration Average U-factor	1.3						
18	Total Cond. Floor Area (ft²)	1525	19	Glasing Percentage (%)	13.20%						
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area	n/a						
22	Is Natural Gas Available?	Yes									

COMPLIANCE RESULTS

01	Building Complies with Computer Performance			
02	Building does not require field testing or HERS verification			
03	This building incorporates one or more Special Features shown below			

ENERGY USE SUMMARY

Energy Use (kBtu/ft²-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	51.59	50.15	1.44	2.8
Space Cooling	39.01	36.33	2.68	6.9
IAQ Ventilation	0	0	0	0
Water Heating	14.16	14.16	0	0
Self Utilization/Flexibility Credit	n/a	0	0	n/a
Compliance Energy Total	104.76	100.64	4.12	3.9

Registration Number:

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time:

Report Version: 2019.1.300  
Schema Version: rev 20200901

HERS Provider:

Report Generated: 2021-04-20 13:15:34

CERTIFICATE OF COMPLIANCE  
Project Name: Altura Vista Addition  
Calculation Description: Title 24 Analysis

Calculation Date/Time: 2021-04-20T13:15:05-07:00  
Input File Name: Altura Vista Addition (2021).rbd19x

CF1R-PRF-01E  
(Page 2 of 10)

REQUIRED SPECIAL FEATURES

The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.

- New ductwork added is less than 40 ft. in length

HERS FEATURE SUMMARY

The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CFPBs and CFPBs are required to be completed in the HERS Registry

Building-level Verifications:

- None

Cooling System Verifications:

- None

Heating System Verifications:

- None

HVAC Distribution System Verifications:

- None

Domestic Hot Water System Verifications:

- None

BUILDING - FEATURES INFORMATION

01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft²)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
Altura Vista Addition	2525	1	3	2	0	1

ZONE INFORMATION

01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft²)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
Existing Living Area	Conditioned	HVAC System1	2108	8	DHW Sys 1	N/A
New Living Area	Conditioned	HVAC System1	417	8	DHW Sys 1	N/A

Registration Number:

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Date/Time:

Report Version: 2019.1.300  
Schema Version: rev 20200901

HERS Provider:

Report Generated: 2021-04-20 13:15:34

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Project Name: Altura Vista Addition  
Calculation Description: Title 24 Analysis

Calculation Date/Time: 2021-04-20T13:15:05-07:00  
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CF1R-PRF-01E  
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OPAQUE SURFACES

01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window and Door Area (ft²)	TIR (deg)	Wall Exceptions	Status	Verified Existing Condition
Front Wall	Existing Living Area	R-0 Wall	0	Front	40	38	90	none	Existing	No
Left Wall	Existing Living Area	R-0 Wall	90	Left	424	0	90	none	Existing	No
Rear Wall	Existing Living Area	R-0 Wall	180	Back	216	87	90	none	Existing	No
Right Wall	Existing Living Area	R-0 Wall	270	Right	448	53	90	none	Existing	No
Front Wall 2	Existing Living Area	R-0 Wall	0	Front	72	0	90	none	Existing	No
Left Wall 2	Existing Living Area	R-0 Wall	90	Left	424	39	90	none	Existing	No
Rear Wall 2	Existing Living Area	R-0 Wall	180	Back	216	40	90	none	Existing	No
Right Wall 2	Existing Living Area	R-0 Wall	270	Right	272	0	90	none	Existing	No
Front Wall 3	New Living Area	R-15 Wall	0	Front	168	34	90	Extension	New	n/a
Left Wall 3	New Living Area	R-15 Wall	90	Left	104	22	90	Extension	New	n/a
Rear Wall 3	New Living Area	R-15 Wall	180	Back	32	0	90	Extension	New	n/a
Right Wall 3	New Living Area	R-15 Wall	270	Right	320	15	90	Extension	New	n/a
Interior Surface	Existing Living Area - Garage	R-0 Wall1	n/a	n/a	168	18	n/a		Existing	No
Interior Surface 2	New Living Area - Existing Living Area	R-0 Wall1	n/a	n/a	200	0	n/a		New	n/a
Roof 2	Existing Living Area	R-11 Roof Attic	n/a	n/a	246	n/a	n/a		Existing	No

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OPAQUE SURFACES - CATHEDRAL CEILINGS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window and Door Area (ft²)	TIR (deg)	Wall Exceptions	Status	Verified Existing Condition			
Roof 3	Existing Living Area	R-11 Roof Attic	n/a	n/a	931	n/a	n/a		Existing	No			
Roof 4	New Living Area	R-30 Roof Attic	n/a	n/a	417	n/a	n/a		New	n/a			
Front Wall 4	Garage	R-0 Wall	0	Front	168	0	90	none	Existing	No			
Left Wall 4	Garage	R-0 Wall	90	Left	160	0	90	none	Existing	No			
Rear Wall 4	Garage	R-0 Wall	180	Back	168	0	90	none	Existing	No			
Right Wall 4	Garage	R-0 Wall	270	Right	160	0	90	none	Existing	No			

OPAQUE SURFACES - CATHEDRAL CEILINGS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Zone	Construction	Azimuth	Orientation	Area (ft²)	Skylight Area (ft²)	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Roof Cool Roof	Status	Verified Existing Condition	
Roof	Garage	R-0 Roof No Attic	0	Front	452	0	4	0.1	0.85	No	Existing	No	

ATTIC

01	02	03	04	05	06	07	08	09	10
Name	Construction	Type	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof	Status	Verified Existing Condition
Attic Existing Living Area	Attic Roof Existing Living Area	Ventilated	4	0.1	0.85	No	No	Existing	No
Attic New Living Area	Attic Roof New Living Area	Ventilated	4	0.1	0.85	No	No	New	n/a

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FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition	
Window	Window	Front Wall	Front	0			1	18	1.19	Table 110.6-A	0.83	Table 110.6-B	Bug Screen	Existing	No
Window - SGD	Window	Rear Wall	Back	180			1	54	1.19	Table 110.6-A	0.83	Table 110.6-B	Bug Screen	Existing	No
Window 2	Window	Rear Wall	Back	180			1	33	1.19	Table 110.6-A	0.83	Table 110.6-B	Bug Screen	Existing	No
Window 3	Window	Right Wall	Right	270			1	13	1.19	Table 110.6-A	0.83	Table 110.6-B	Bug Screen	Existing	No
Window - SGD 2	Window	Right Wall	Right	270			1	40	1.19	Table 110.6-A	0.83	Table 110.6-B	Bug Screen	Existing	No
Window 4	Window	Left Wall 2	Left	90			1	24	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
Window 5	Window	Left Wall 2	Left	90			1	7.5	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
Window 6	Window	Left Wall 2	Left	90			1	7.5	0.3	NFRC	0.23	NFRC	Bug Screen	Altered	No
Window - SGD 3	Window	Rear Wall 2	Back	180			1	40	1.19	Table 110.6-A	0.83	Table 110.6-B	Bug Screen	Existing	No
Window - SGD 4	Window	Front Wall 3	Front	0			1	34	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Window 7	Window	Left Wall 3	Left	90			1	22	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Window 8	Window	Right Wall 3	Right	270			1	7.5	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Window 9	Window	Right Wall 3	Right	270			1	7.5	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a

OPAQUE DOORS

01	02	03	04	05	06
Name	Side of Building	Area (ft²)	U-factor	Status	Verified Existing Condition
Door	Front Wall	20	0.5	Existing	No
Door 2	Interior Surface	18	0.5	Existing	No

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SLAB FLOORS

01	02	03	04	05	06	07	08	09	10
Name	Zone	Area (ft²)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated	Status	Verified Existing Condition
Slab 2	Existing Living Area	1177	141	none	0	80%	No	Existing	No
Slab 2	Garage	452	82	none	0	0%	No	Existing	No

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-0 Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / None	0.361	Inside Finish: Gypsum Board Cavity / Frame: no Insul. / 2x4 Exterior Finish: 3 Coat Stucco
R-15 Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-15	None / None	0.095	Inside Finish: Gypsum Board Cavity / Frame: R-15 / 2x4 Exterior Finish: 3 Coat Stucco
R-0 Roof No Attic	Cathedral Ceilings	Wood Framed Ceiling	2x4 @ 16 in. O. C.	R-0	None / None	0.484	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no Insul. / 2x4 Inside Finish: Gypsum Board
R-0 Wall1	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / None	0.277	Inside Finish: Gypsum Board Cavity / Frame: no Insul. / 2x4 Other Side Finish: Gypsum Board
Attic Roof Existing Living Area	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / None	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no Insul. / 2x4

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OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
Attic Roof New Living Area	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / None	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no Insul. / 2x4
R-11 Roof Attic	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-11	None / None	0.081	Over Ceiling Joists: R-10.9 Insul. Cavity / Frame: R-8.1 / 2x4 Inside Finish: Gypsum Board
R-30 Roof Attic	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-30	None / None	0.032	Over Ceiling Joists: R-20.9 Insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION

01	02	03	04
Quality Insulation Installation (QII)	High R-value Spray Foam Insulation	Building Envelope Air Leakage	CFM50
Not Required	Not Required	Not Required	n/a

WATER HEATING SYSTEMS

01	02	03	04	05	06	07	08	09	10
Name	System Type	Distribution Type	Water Heater Name (H)	Solar Heating System	Compact Distribution	HERS Verification	Status	Verified Existing Condition	Existing Water Heating System
DHW Sys 1	Domestic Hot Water (DHW)	Standard Distribution System	DHW Heater 1 (1)	n/a	None	n/a	Existing	No	

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WATER HEATERS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (incl. Ext)	Standby Loss or Recovery Eff	1st Hc. Rating or Flow Rate	NEEA Heat Pump Brand or Model	Tank Location or Ambient Condition	Status	Verified Existing Condition
DHW Heater 1	Gas	Small Storage	1	50	0.57-EF	≈ 75 kBtu/hr	0	78	n/a	n/a	n/a	Existing	No

WATER HEATING - HERS VERIFICATION

01	02	03	04	05	06	07	08
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Central DHW Distribution	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Status	Verified Existing Condition	Heating Equipment Count	Cooling Equipment Count
HVAC System1	Heating and cooling system other	Heating Component 1	Cooling Component 1	HVAC Fan 1	Air Distribution System 1	n/a	Existing	No	1	1

HVAC - HEATING UNIT TYPES

01	02	03	04
Name	System Type	Number of Units	Heating Efficiency
Heating Component 1	Central gas furnace	1	AFUE-80

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HVAC - COOLING UNIT TYPES

01	02	03	04	05	06	07	08
Name	System Type	Number of Units	Efficiency EER/CEER	Efficiency SEER	Zonally Controlled	Multi-speed Compressor	HERS Verification
Cooling Component 1	Central split AC	1	11.7	14	Not Zonal	Single Speed	Cooling Component 1-hers-cool

HVAC - DISTRIBUTION SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Design Type	Supply	Return	Supply	Return	Supply	Return	Bypass Duct	Duct Leakage	HERS Verification	Status	Verified Existing Condition	Existing Distribution system	New Ducts 40 ft
Air Distribul on System 1	Unconditioned attic	Non-Verified	R-6	R-6	Attic	Attic	n/a	n/a	No Bypass Duct	Existing (not specified)	Air Distribul on System 1-hers-dist	Existing + New	No	n/a	n/a

HVAC FAN SYSTEMS - HERS VERIFICATION

01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficiency (Watts/CFM)
HVAC Fan 1-hers-fan	Not Required	0

HERS RATER VERIFICATION OF EXISTING CONDITIONS

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## OF 13 SHEETS:

[illegible]



GENERAL CRITERIA

APPLYING TO ALL STRUCTURAL FEATURES UNLESS OTHERWISE SHOWN OR NOTED.

1. GENERAL

WHERE PUBLIC UTILITY LINES OR EQUIPMENT MUST BE REMOVED, AND/OR RELOCATED, OBTAIN THE NECESSARY APPROVALS FROM WATER AND POWER DEPARTMENT PRIOR TO STARTING WORK.

NECESSARY PERMITS FROM PUBLIC WORKS SHALL BE SECURED AND NECESSARY BARRIERS, PROTECTION FENCES, AND/OR CANOPIES SHALL BE ERECTED ALONG PUBLIC WAYS PRIOR TO STARTING CONSTRUCTION.

SEPARATE MECHANICAL PERMIT SHALL BE SECURED FOR ALL ELECTRICAL, PLUMBING, AND HEATING–VENTILATING WORK.

STRUCTURAL ELEMENTS (INCLUDING WALLS AND FOOTINGS) WHICH PROJECT INTO PUBLIC PROPERTY REQUIRE PUBLIC WORKS APPROVAL PRIOR TO ISSUANCE OF BUILDING PERMIT.

BREAKS IN ROOFING SHALL BE PATCHED.

PLANS AND DETAILS WERE DEVELOPED BASED UPON A FIELD INVESTIGATION BY THE RESPONSIBLE ARCHITECT/ENGINEER AND REFLECT THE APPROXIMATE ACTUAL CONDITIONS OF THE BUILDING. ALL DIMENSIONS SHALL BE FIELD VERIFIED.

BUILDING SHALL NOT BE OCCUPIED DURING REMODEL WORK WHERE:

1. THE BUILDING STRENGTH IS SUBSTANTIALLY WEAK @ AT ANY POINT DURING THE REMODEL WORK.

2. REQUIRED EXITS ARE NOT AVAILABLE OR ARE OBSTRUCTED.

3. REQUIRED FIRE SAFETY DEVICES, SUCH AS SPRINKLERS, STANDPIPES AND ALARM SYSTEM ARE NOT OPERATIONAL.
2. REFERENCE TO OTHER DRAWINGS

SEE DRAWINGS OTHER THAN STRUCTURAL FOR: KINDS OF FLOOR FINISH AND THEIR LOCATION, FOR DEPRESSIONS IN FLOOR SLABS, FOR OPENINGS IN WALLS AND FLOORS REQUIRED BY ARCHITECTURAL AND MECHANICAL FEATURES, FOR ROADWAY PAVING, WALKS, RAMPS, STAIRS, CURBS, ETC.

HOLES AND OPENINGS THROUGH WALLS, BEAMS AND FLOOR FOR ELEVATORS, DUCTS, PIPING AND VENTILATION SHALL BE CHECKED BY THE CONTRACTOR WHO SHALL VERIFY SIZES AND LOCATIONS OF SUCH HOLES OR OPENINGS WITH THE PLUMBING, HEATING, VENTILATING AND ELECTRICAL DRAWINGS AND THESE SUB–CONTRACTORS.
3. INTENT

IF CERTAIN FEATURES ARE NOT FULLY SHOWN OR CALLED FOR ON THE DRAWINGS OR SPECIFICATIONS, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS FOR SIMILAR CONDITIONS THAT ARE SHOWN OR CALLED FOR.
4. DISCREPANCIES

THE CONTRACTOR SHALL COORDINATE STRUCTURAL DRAWINGS WITH OTHER DRAWINGS FOR INDIVIDUAL ITEMS. DISCREPANCIES UNCOVERED, IF ANY, SHALL BE REPORTED BEFORE PROCEEDING WITH THE WORK SO THAT PROPER ADJUSTMENT CAN BE MADE.

ALL NEW CONSTRUCTION MUST BE COORDINATED WITH EXISTING SITE CONDITIONS.
6. REINFORCING

ALL REINFORCING STEEL SHALL BE GRADE 60 (FY = 60 KSI) FOR #4 AND LARGER, GRADE 40 FOR #3 AND SMALLER DEFORMED BARS, IN ACCORDANCE WITH ASTM A615 AND WITH DEFORMATIONS CONFORMING TO ASTM A305–56T. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185, UNLESS NOTED OTHERWISE. REINFORCING STEEL TO BE WELDED TO MEET ASTM A706 REQUIREMENTS

ALL REINFORCEMENT SHALL BE CONTINUOUS. STAGGER SPLICES WHERE POSSIBLE. LAPS FOR SPLICES SHALL BE 48 DIAMETERS UNLESS OTHERWISE SHOWN OR NOTED.

SUPPORT REINFORCEMENT IN ITS TRUE HORIZONTAL AND VERTICAL POSITION WITH DEVICES SUFFICIENTLY NUMEROUS TO PERMIT WALKING ON STEEL WITHOUT DISPLACEMENT.

ALL REINFORCEMENT SHALL BE SECURELY WIRED TOGETHER IN FORMS. TWO WAY MATS OF STEEL SHALL BE TIED AT ALTERNATE INTERSECTIONS BOTH WAYS MINIMUM. WALL STEEL SPREADERS SHALL BE #3 BARS, 4'–0" EACH WAY MAXIMUM.

TACK WELDING OF ANY REINFORCING IS NOT PERMITTED UNLESS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER IN WRITING.

7. MINIMUM CONCRETE PROTECTION FOR REINFORCEMENT–CLEAR DISTANCE

FOOTINGS, TIE BEAMS, GRADE BEAMS, 3 INCHES SLABS ON GRADE

WALLS, PEDESTALS2 INCHES AT FORMED FACE AGAINST EARTH, OR WATER1 1/2 INCHES AT EXTERIOR FACE ABOVE GRADE1 INCH AT INTERIOR FACE ABOVE GRADE AT WALLS,1 1/2" AT COLS AND BEAMS.
- CONCRETE

BASIS FOR DESIGN STRENGTH AT 28 DAYS:

POURED IN PLACE F' C=2,500 PSI N.W.C.

N.W.C. = NORMAL WEIGHT CONCRETE.

ALL CONCRETE SHALL BE REINFORCED UNLESS SPECIFICALLY MARKED "NOT REINFORCED".

AGGREGATE SIZE 3/4" MAX EXCEPT AT FOOTINGS WHERE IT IS TO BE 1 1/2" MAX
- TO OBIVATE SHRINKAGE, LIMIT SLAB–ON–GRADE POURS TO 3600 SQ.FT. AND WALLS TO 60' LENGTHS. POURS ON METAL DECK TO BE LIMITED TO AREAS 90' X 90'. SUBMIT LAYOUTS FOR APPROVAL PRIOR TO ALL POURS TO OWNER'S REPRESENTATIVE. CONTROL JOINTS SHALL OCCUR AT 20'–0" O.C. EACH WAY.
- SLAB ON GRADE

SEE PLANS FOR SPECIFIC NOTES

11. LUMBER

UNMANUFACTURED FRAMING LUMBER SHALL BE DOUGLAS FIR/LARCH NO. 2 OR NO. 1 AND GRADE PER PLAN MARKED PER WCLB SPECIFICATIONS. MANUFACTURED LUMBER SHALL BE PER "TRUSS JOIST McMillian" AS DESIGNATED ON PLANS. ALL MEMBER ALL PSL MEMBER TO BE 2.0 E PARALLAM.

STRUCTURAL PLYWOOD SHALL BE DOUGLAS FIR CONFORMING TO COMMERCIAL STANDARDS PSI–74, STRUCTURAL EXTERIOR TYPE GRADE C–D, GRADE STAMPED APA.

NAILING SHALL CONFORM TO THE BUILDING CODE UNLESS OTHERWISE NOTED. SUBSTITUTIONS FOR FRAMING HARDWARE SHALL NOT BE USED UNLESS APPROVED BY THE ARCHITECT/ENGINEER.

NO STRUCTURAL MEMBER SHALL BE CUT OR NOTCHED UNLESS SPECIFICALLY SHOWN, NOTED OR APPROVED BY THE ARCHITECT/ENGINEER.S

USE DOUBLE JOISTS UNDER WALLS OR PARTITIONS PARALLEL TO JOISTS. USE SOLID BLOCK UNDER PARTITIONS PERPENDICULAR TO JOISTS.

MAXIMUM MOISTURE CONTENT SHALL NOT EXCEED 19% FOR UNMANUFACTURED ALL STRUCTURAL MEMBERS.

PROVIDE WASHERS UNDER HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD.

HARDWARE TO BE PER SIMPSON OR EQUIVALENT

EPOXY SYSTEM

PROVIDE SIMPSON SET–XP ADHESIVE SYSTEM FOR EPOXY ANCHOR (ICC–ESR 2508).

SOIL DESIGN PARAMETERS

ALLOWABLE FOUNDATION PRESSURE NOT TO EXCEED 1,500 PSF BEARING FOR ALL LOAD

PRESCRIPTIVE WIDTH AND THICKNESS OF FOOTING SHALL COMPLY WITH 2019 CBC CHAPTER 18

DESIGN CRITERIA

THE FOLLOWING CRITERIA COVER THE STRUCTURAL DESIGN OF THIS BUILDING.

- CODES

2019 CALIFORNIA BUILDING CODE.
- DESIGN LOADS

DEAD LOADS – TYPICALLY AS FOLLOWING:

1.) ROOF : COMP. SHINGLES3.0 PSF

2.) 1/2" PLYWOOD1.5 PSF

3.) ROOF & CEIL'G FRAMING3.0 PSF

4.) INSULATION.5 PSF

5.) GYP CEILING BOARD2.5 PSF

6.) MISC.2.5 PSF

7.) TOTAL ROOF DEAD LOAD:13 PSF

8.) EXTERIOR WALL16 PSF

9.) INTERIOR WALL8 PSF

LIVE LOADS – UNIFORM AS FOLLOWS:

1.) ROOFS20 PSF

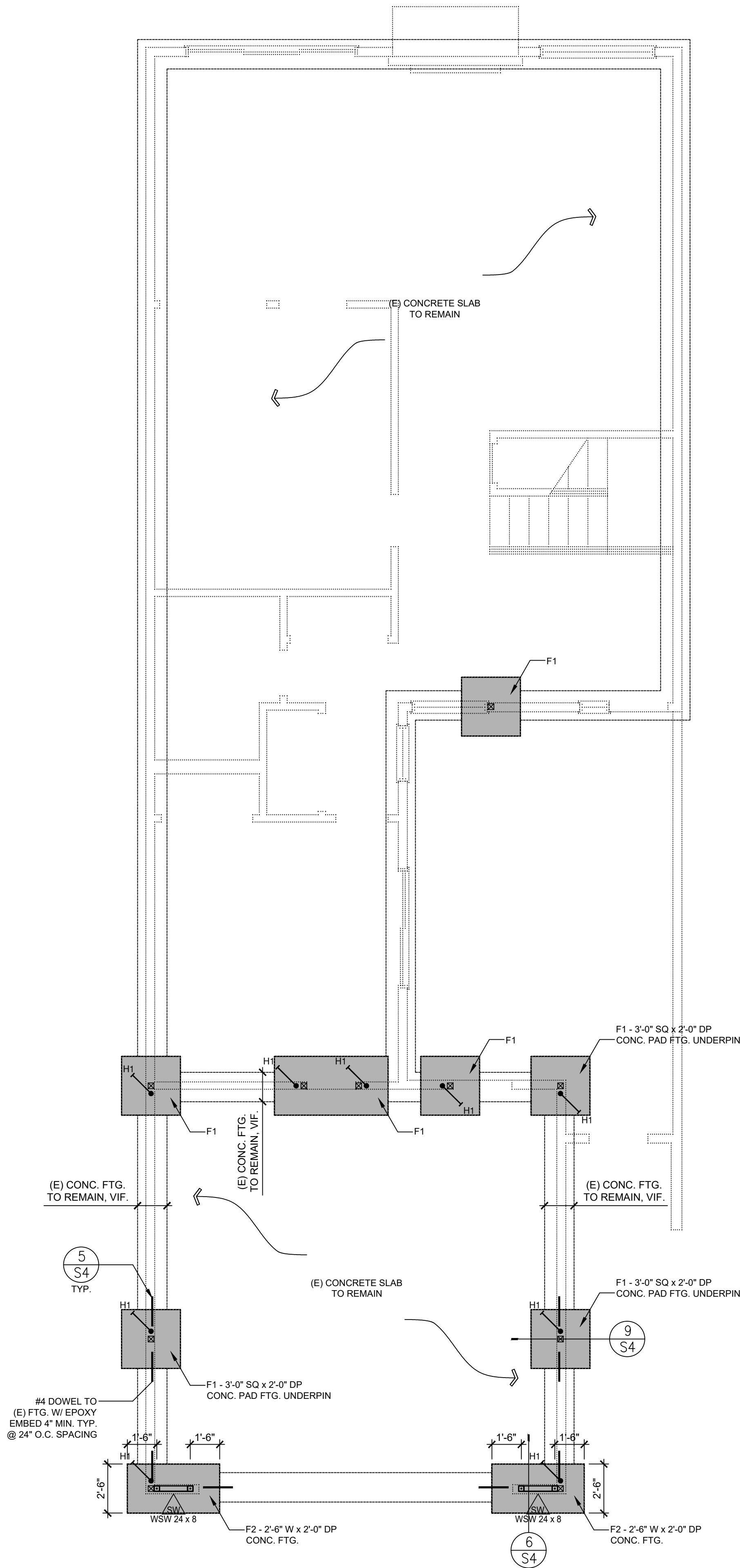
2.) TYPICAL FLOORS40 PSF
- | SEISMIC PARAMETERS  |          |            |     |         |         |      |       |        |        |    |      |      |       |
|---------------------|----------|------------|-----|---------|---------|------|-------|--------|--------|----|------|------|-------|
| Seismic Design Cat. | Occ Cat. | Site Class | R   | SDS (g) | SD1 (g) | P    | Ta    | Ss (g) | S1 (g) | TL | Fa   | Fy   | Cs    |
| E                   | II       | D          | 6.5 | 1.909   | 0.86    | 1.40 | 0.175 | 2.386  | 0.86   | 8  | 1.00 | 1.50 | 0.206 |
- | WIND PARAMETERS |          |           |          |      |           |
|-----------------|----------|-----------|----------|------|-----------|
| Wind Speed      | Occ Cat. | Roughness | Exposure | Iw   | Topo Type |
| 110             | II       | C         | C        | 1.00 | Flat      |
- FASTENING SCHEDULE
- 2019 CALIFORNIA BUILDING CODE TABLE 2304.10.1  
The following are general requirements of the fastening schedule based on the 2019 CA Building Code. This handout is intended to provide only general information, for further information contact the Building & Safety Division.
- |    | ELEMENT/CONNECTI ON   | FASTENER   |                    | LOCATION |
|----|---|--|--------------------|----------|
|    |   | ROOF   |                    |          |
| 1. | Blocking between ceiling joists, rafters or trusses to top plate or other framing below                       | 3 - 8d common (2 1/2" x 0.131")<br>3-10d box (3"x0.128")<br>3 - 3" x 0.131" nails<br>3 - 3" 14 gage staples, 7/16" crown | Toenail each end   |          |
|    | Blocking between rafters or truss not at the wall top plate, to rafter or truss                               | 2 - 8d common (2 1/2" x 0.131")<br>2 - 3" x 0.131" nails<br>2 - 3" 14 gage staples                                       | toenail each end   |          |
|    |   | 2-16d common (3 1/2"x0.162")<br>3-3"x0.131" nails<br>3-3" 14 gage staples  | end nail           |          |
|    | Flat blocking to truss and web filler   | 16d common (3 1/2"x0.162") @6" o.c.<br>3-3"x0.131" nails @ 6" o.c.<br>3-3" 14 gage staples @ 6" o.c.                     | Face nail          |          |
| 2. | Ceiling joists to top plate   | 3-8d common<br>3-10d box<br>3-3"x0.131" nails<br>3-3" 14 gage staples, 7/16" crown                                       | Toenail each joist |          |
| 3. | Ceiling joist not attached to parallel rafter, laps over partitions (no thrust) (Table and Section2308.7.3.1) | 3-16d common<br>4-10d box<br>4-3"x0.131" nails<br>4-3" 14 gage staples, 7/16" crown                                      | Face nail          |          |
| 4. | Ceiling joists attached to parallel rafter (heel joint) (Table and Section2308.7.3.1)                         | Table 2308.7.3.1   | Face nail          |          |
| 5. | Collar tie to rafter  | 3-10d common<br>4-10d box<br>4-3"x0.131" nails<br>4-3" 14 gage staples, 7/16" crown                                      | Face nail          |          |
| 6. | Rafter or roof truss to top plate (Table and section 2308.7.5)  | 3-10 common<br>3-16d box<br>4-10d box<br>4-3"x0.131" nails<br>4-3" 14 gage staples, 7/16" crown                          | Toenail (6)        |          |
| 7. | Roof rafters to ridge valley  | 2-16d common   | End nail           |          |
- |     |  |  |  |
|-----|--|--|--|
| 17. | Top or bottom plate to stud  | 2-16d common<br>3-10d box<br>3-3"x0.131" nails<br>3-3" 14 gage staples, 7/16" crown          | End nail   |
| 18. | Top plates, laps at corners and intersections                                | 2-16d common<br>3-10d box<br>3- 3"x0.131" nails<br>3-3" 14 gage staples, 7/16" crown         | Face nail  |
| 19. | 1" brace to each stud and plate  | 2-8d common<br>2-10d box<br>2- 3"x0.131" nails<br>2- 3" 14 gage staples, 7/16" crown         | Face nail  |
| 20. | 1"x6" sheathing to each bearing  | 2-8d common<br>2-10d box   | Face nail  |
| 21. | 1"8" and wider sheathing to each bearing                                     | 3-8d common<br>3-10d box   | Face nail  |
|     |  | FLOOR  |  |
| 22. | Joist to sill, top plate, or girder  | 3-8d common<br>3-10d box<br>3-3"x0.131" nails<br>3-3" 14 gage staples, 7/16" crown           | Toenail  |
| 23. | Rim joist, band joist, or blocking to top plate, sill or other framing below | 8d common<br>10d box<br>3"x0.131" nails<br>3" 14 gage staples, 7/16" crown                   | 6" o.c., toenail   |
| 24. | 1"x6" subfloor or less to each joist   | 2-8d common<br>2-10d box   | Face nail  |
| 25. | 2" subfloor to joist or girder   | 2-16d common   | Face nail  |
| 26. | 2" plank   | 2-16d common   | Each bearing, face nail  |
| 27. | Built up girders and beams, 2" lumber layers                                 | 20d common   | 32" o.c. face nail at top and bottom staggered on opposite sides |
|     |  | 10d box<br>3"x0.131" nails<br>3" 14 gage staples, 7/16" crown                                | 24" o.c. face nail at top and bottom staggered on opposite sides |
|     |  | And:<br>2-20d common<br>3-10dbox<br>3- 3"x0.131" nails<br>3- 3" 14 gage staples, 7/16" crown | Ends and at each splice, face nail                               |
| 28. | Ledger strip supporting joists or rafters                                    | 3-16d common<br>4-10d box<br>4-3"x0.131" nails<br>4-3" 14 gage staples, 7/16" crown          | Each joist or rafter, face nail                                  |
| 29. | Joist to band joist or rim joist   | 3-16d common<br>4-10d box<br>4-3"x0.131" nails<br>4-3" 14 gage staples, 7/16" crown          | End nail   |
| 30. | Bridging or blocking to  | 2-8d common  | Each end, toenail  |
- |      |  |  |  |
|------|--|--|--|
|      | or hip rafters; or roof rafter to 2" ridge beam                                      | 3-10d box<br>3-3"x0.131" nails<br>3-3" 14 gage staples, 7/16" crown<br>3-10d common<br>3-16d box<br>4-10d box<br>4-3"x0.131" nails<br>4- 3" 14 gage staples, 7/16" crown | Toenail  |
| WALL |  |  |  |
| 8.   | Stud to Stud (not at braced wall panels)   | 16d common<br>10d box<br>3"x0.131" nails<br>3" 14 gage staples, 7/16" crown  | 24" o.c. face nail<br>16" o.c. face nail   |
| 9.   | Stud to stud and abutting studs at intersecting wall corners (at braced wall panels) | 16d common<br>16d box<br>3"x0.131" nails<br>3" 14 gage staples, 7/16" crown  | 16" o.c. face nail<br>12" o.c. face nail   |
| 10.  | Built-up header  | 16d common<br>16d box  | 16" o.c. each edge, face nail<br>12" o.c. each edge, face nail                       |
| 11.  | Continuous header to stud  | 4-8d common<br>4-10d box   | Toenail  |
| 12.  | Top plate to top plate   | 16d common<br>10d box<br>3"x0.131" nails<br>3" 14 gage staples, 7/16" crown  | 16" o.c. face nail<br>12" o.c. face nail   |
| 13.  | Top plate to top plate, at end joints  | 8-16d common<br>12-16d box<br>12-3"x0.131" nails<br>12-3" 14 gage staples, 7/16" crown   | Each side of end joint, face nail (min 24" lap splice length each side of end joint) |
| 14.  | Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels) | 16d common<br>16d box<br>3"x0.131" nails<br>3" 14 gage staples, 7/16" crown  | 16" o.c. face nail<br>12" o.c. face nail   |
| 15.  | Bottom plate to joist, rim joist, band joist or blocking at braced wall panels       | 2-16d common<br>3-16d box<br>4-3"x0.131" nails<br>4-3" 14 gage staples, 7/16" crown  | 16" o.c. face nail   |
| 16.  | Stud to top or bottom plate  | 4-8d common<br>4-10d box<br>4-3"x0.131" nails<br>4-3" 14 gage staples, 7/16" crown<br>3-10d box<br>3-3"x0.131" nails<br>3-3" 14 gage staples, 7/16" crown                | Toenail<br>End nail  |
- |  |                                 |  |   |
|--|---------------------------------|--|---|
|  | joist, rafter or truss          | 2-10d box<br>2-3"x0.131" nails<br>2-3" 14 gage staples, 7/16" crown  |   |
| WOOD STRUCTURAL PANS, SUB FLOOR, ROOF AND INTERIOR WALL SHEATHING TO FRAMING AND PARTICLEBOARD WALL SHEATHING TO FRAMING (6) |                                 |  |   |
| 31.  | 3/8"-1/2"                       | 6d common or deformed (2"x0.113") (subfloor and wall)<br>8d box or deformed (roof)<br>2 3/8"x0.113" nail (subfloor and wall)<br>1 1/2" 16 gage staple, 7/16" crown<br>2 3/8" x0.113" nail (roof)<br>1 1/2"16 gage staple, 7/16" crown (roof) | 6" edge<br>12" intermediate supports<br>4" edge<br>8" intermediate supports<br>3" edge<br>6" intermediate supports  |
| 32.  | 19/32" –3/4"                    | 8d common<br>6d deformed<br>2 3/8"x0.113 nail<br>2" 16" gage staple, 7/16" crown<br>10d common<br>8d deformed  | 6" edge<br>12" intermediate supports<br>4" edge<br>8" intermediate supports<br>6" edge<br>12" intermediate supports |
| 33.  | 7/8" – 1/4"                     | 8d deformed  | 6" edge<br>12" intermediate supports  |
| OTHER EXTERIOR WALL SHEATHING  |                                 |  |   |
| 34.  | 1/2" fiberboard sheathing(6)    | 1 1/2" galvanized roof nail<br>1 1/2" 16 gage staple with 7/16" or 1" crown  | 3" edge<br>6" intermediate supports   |
| 35.  | 25/32" fiberboard sheathing (6) | 1 3/4" galvanized roof nail<br>1 1/2" 16 gage staple with 7/16" or 1" crown  | 3" edge<br>6" intermediate supports   |
| WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING   |                                 |  |   |
| 36.  | 1/2" and less                   | 8d common<br>6d deformed   | 6" edge<br>12" intermediate supports  |
| 37.  | 7/8"-1"                         | 8d common<br>8d deformed   | 6" edge<br>12" intermediate supports  |
| 38.  | 1 1/8"-1 1/2"                   | 10d common<br>8d deformed  | 6" edge<br>12" intermediate supports  |
| PANEL SIDING TO FRAMING  |                                 |  |   |
| 39.  | 1/2" or less                    | 6d corrosion-resistant siding<br>6d corrosion-resistant casing   | 6" edge<br>12" intermediate supports  |
| 40.  | 5/8"                            | 8d corrosion-resistant siding<br>8d corrosion-resistant casing   | 6" edge<br>12" intermediate supports  |
| INTERIOR PANELING  |                                 |  |   |
| 41.  | 1/4"                            | 4d casing<br>4d finish   | 6" edge<br>12" intermediate supports  |
| 42.  | 3/8"                            | 6d casing<br>6d finish   | 6" edge<br>12" intermediate supports  |
- For SI: 1 inch = 25.4 mm.

a. Nails spaced at 6 inches at intermediate supports where spans are 48" or more. For nailing of wood structural panel and particleboard diaphragms and shear walls, refer to Section 2305. Nails for wall sheathing are permitted to be common, box or casing.

b. Spacing shall be 6 inches on center on the edges and 12 inches on center at intermediate supports for nonstructural applications. Panel supports at 16 inches (20 inches if strength axis in the long direction of the panel, unless otherwise marked).



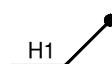





c. Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule and the ceiling joist is fastened to the top plate in accordance with this schedule, the number of toenails in the rafters shall be permitted to be reduced by one nail.
- \*\* See Table 2304.10.1 for more information
- STRUCTURE ENGINEER  
DAN L. CHEN S.E.  
T 510 579 8230  
47849 Masters Ct.  
Fremont, CA 94539
- 
- SINGLE FAMILY HOUSE  
202 ALTURA VISTA,  
LOS ALTOS, CA 95032
- PROJECT
- ADDITION &  
REMODEL
- SHEET TITLE
- GENERAL  
NOTES
- REVISION
- 
- DATE 05.05.21  
DRAWN BY AA  
SCALE AS SHOWN  
SHEET
- S-1





FOUNDATION & FLOOR FRAMING NOTES:

- Garage existing foundation to remain as shown in Architectural drawing
- Foundation design per CBC Chapter 18 min. soil bearing.
  - Finish grade shall be sloped away from the foundation. Water collected from the gutter / down spout shall be connected to the sub-drain and discharged away from the foundation.
  - Concrete strength  $f_c$  shall be 2500 psi minimum at 28th day pour.
  - Reinforcing steel shall be ASTM 615A, grade 40 deformed bars for #4 and larger; grade 40 for #3 and smaller.
  - Typical sill plate anchor bolt shall be 10 inches long, 5/8" diameter A307 bolt, with 3 1/2" x 3 1/2" x 1/4" plate washer, spaced at 4'-0" o.c. Unless otherwise noted.
  - ☒ H1 denotes 4X4 or (2)-2X4 post with HDU2 holdown.
  - ☒ H2 denotes 4X4 or (2)-2X4 post with HDU5 holdown. Unless otherwise noted.. See Det. (15/54), (16/54) & (17/54)
  - See shear wall schedule. denotes shear wall
  - All exterior wall shall be covered with STRUCTURAL 1 3/8" OSB or Plywood and nailed with 8d @ 6" o.c. edges and 12" o.c. field. Unless otherwise noted
  - The nails and any other fastener connecting to PT members mudsill & plant washers for PT mudsills shall be hot-dipped zinc galvanized stainless steel, silicon Bronze or copper - Corrosion Resistant Metal connectors..
  - All holdown bolts shall be tightened prior to call for inspection by city inspector.
  - Vapor Retarder and Capillary break is installed at slab on grade foundations. Capillary break shall be installed in Garage slab 4" thickbase of 3/8" or larger clean aggregate shall be provided w/ a vapor barrier in direct contact w/ concrete
  - All foundations depth shall measure from lowest adjacent grade.
  - V.I.F. existing condition. Avoid cutting or damage existing post tension strip.
  - V.I.F. existing foundation system. All new footing to match w/ existing.

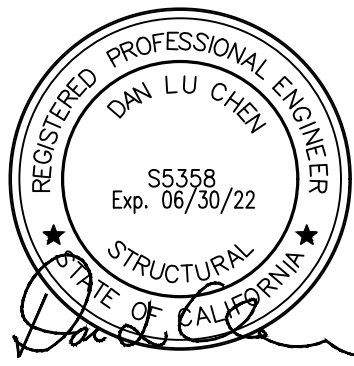
FOOTING SCHEDULE:		LEGEND & NOTES :		<input checked="" type="checkbox"/> 4x4 POST <input checked="" type="checkbox"/> 4x6 POST			
TYPICAL REINFORCEMENT: #4 @ 12" O.C EACH WAY AT BOTTOM. 3" CLEAR ALL AROUND TYP.		<div> (E) FOUNDATION</div> <div> (N) FOUNDATION</div> <div> HOLDOWN</div>		<div> <b>SHEAR WALL, SEE SWS SCHEDULE SHEET S1</b></div>			
<div> F1</div>	3'-0" SQ x 2'-0" DP CONC. PAD FTG.						
<div> F2</div>	2'-6" W x 2'-0" DP CONT. CONC. FTG.						
SHEAR WALL SCHEDULE							
TYPE	STUD	PLYWOOD	NAILS	SILLPLATE NAIL	FRAMING ANCH. A35	A.B. @24"o.c. MAX. AT ALL SW	
<div> 6</div>	2X	1/2" CDX	10d @ 6" EDGE 10d @ 12" FIELD	16d @ 4"	@ 16"	5/8" Ø @ 24" O.C.	
<div> 4</div>	2X	1/2" CDX	10d @ 4" EDGE 10d @ 12" FIELD	16d @ 4"	@ 12"	5/8" Ø @ 24" O.C.	

CONTRACTOR TO VIF EXISTING FOUNDATION. DO NOT CUT (E) FOUNDATION IF IT FOUND TO BE P.T. SLAB. NOTIFY EOR. PRIOR CONTINUING THE CONSTRUCTION.

FOUNDATION PLAN

SCALE 1/4"= 1'-0"

STRUCTURE ENGINEER  
DAN L. CHEN S.E.  
T 510 579 8230  
47849 Masters Ct.  
Fremont, CA 94539



SINGLE FAMILY HOUSE  
202 ALTURA VISTA,  
LOS ALTOS, CA 95032

PROJECT

ADDITION &  
REMODEL

SHEET TITLE

FOUNDATION  
PLAN +  
NOTES

REVISION



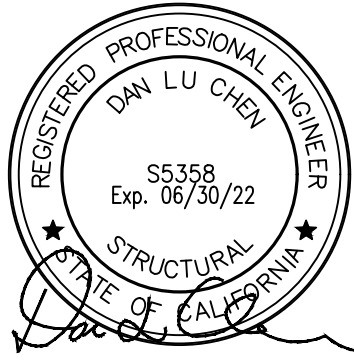
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SCALE AS SHOWN

SHEET





SINGLE FAMILY HOUSE  
202 ALTURA VISTA,  
LOS ALTOS, CA 95032

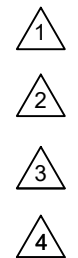
PROJECT

ADDITION &  
REMODEL

SHEET TITLE

FLOOR & ROOF  
FRAMING  
PLANS +  
NOTES

REVISION

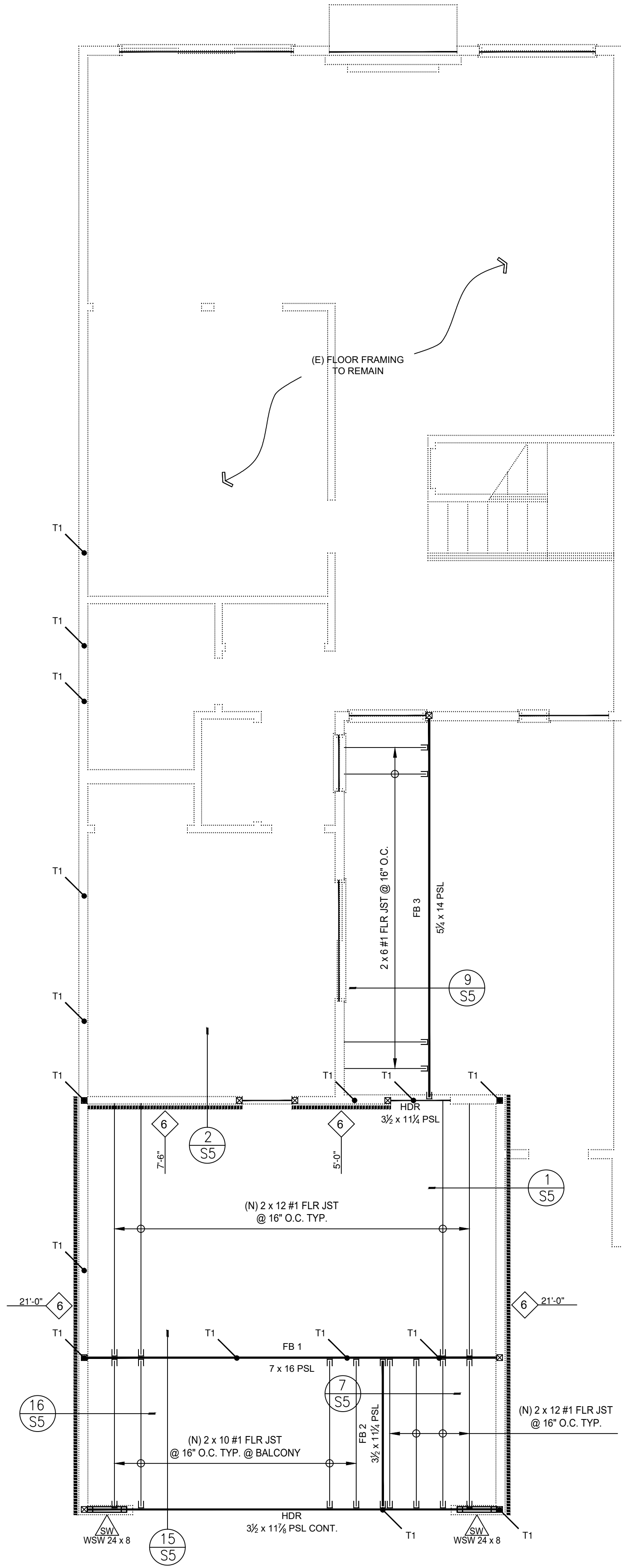


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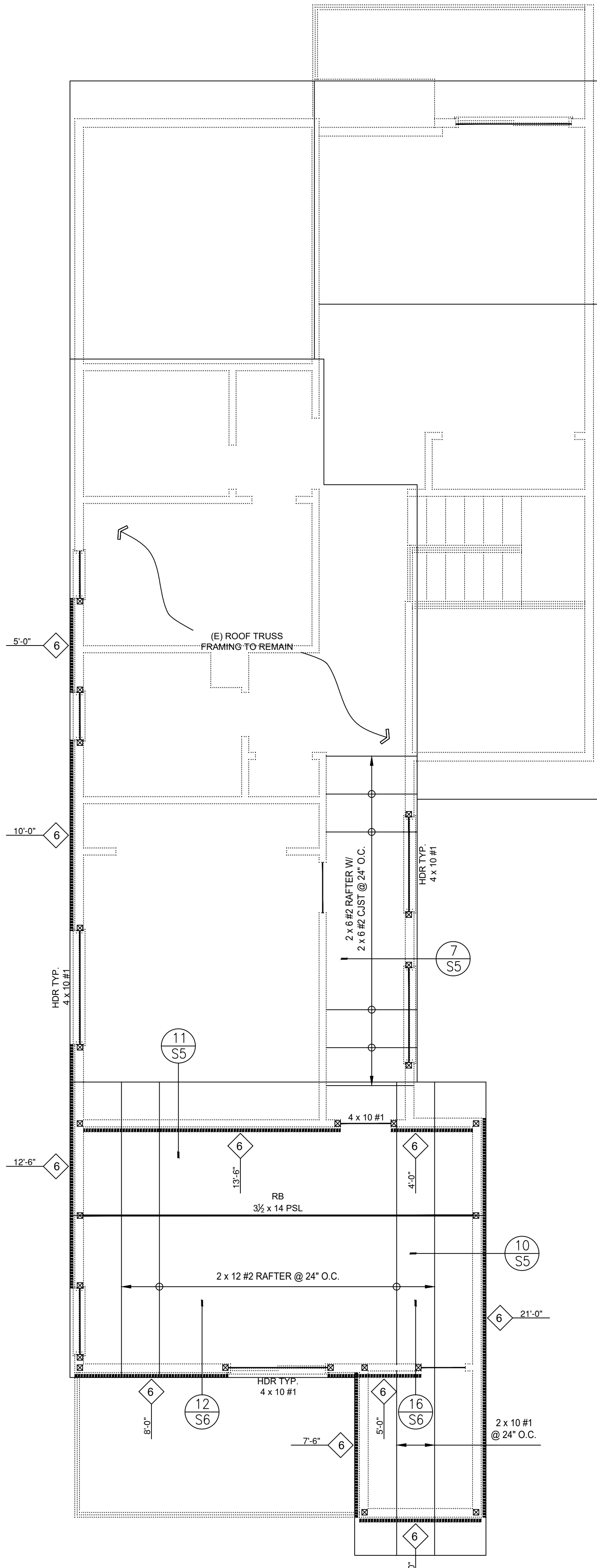
SCALE AS SHOWN

SHEET



SECOND FLOOR & LOWER ROOF  
FRAMING PLAN

SCALE 1/4"= 1'-0"



UPPER ROOF FRAMING PLAN

SCALE 1/4"= 1'-0"

FLOOR AND LOWER ROOF FRAMING

1. All floor sheathing to be 3/4" CDX plywood or OSB T&G with 10d @ 6" O.C edge and 10" O.C. field.
2. All floor joist to be TJI 230 x 11 1/2" depth at 16" O.C. and provide double floor Joist under partition wall.
3. Provide Simpson HU type of hanger for I joist to beam connection.
4. All floor beam shall be 2.0 Parallam PSL type by Weyerhaeuser.
5. Provide minimum 4x4 #1 post support for 3-1/2 x PSL beam or 4x beam member and 4x6 #1 post for 5-1/4 x PSL beam and 3-1/2 x 7PSL post for 7x beam.
6. All 3-1/2 x and 5-1/4 x beams shall have Simpson CCO44SDS2.5 and CCO66SDS2.5 column cap to 4x4 or 4x6 posts.
7. The floor beams connect to each other with Simpson EGO Hanger U.N.O. 3-1/2 x beam shall have EGQ3.62-SDS3 Hanger, 5-1/4 x beam shall have EGQ5.50-SDS3 Hanger. 7x beam shall have EGQEQ7.25-SDS3
8. T1 denoted Simpson MST 48 strap connect from 2nd floor shear panel to shear panel or transfer beam and 2nd floor level see detail 4/S5 and 5/S6.
9. C1 denote Simpson CMSTC16 strap 68 inches total length at top plate and blocking or collector member, see detail 18/S7 & 18/S6 for collector at floor, see detail 13/S7, 3/S7 & 19/S7 at lower roof collector.
10. All framing lumber for lower roof to be Douglas Fir/Larch, U.N.O.
11. Use RR hanger and / or LS70 at rafter to ridge or hip beam connections, see detail 13/S6 and 4/S7
12. All roof and ceiling beam shall be support by 4x or 6x post with positive connection, see detail 11/S7
13. The lower roof sheathing to 1/2" CDX plywood or OSB and nailed and placed with 10d at 6" o.c edge and 12" o.c. field.
14. All California framing shall have plywood sheathing at upper and lower framing, see detail 14/S6

ROOF NOTES:

1. All new roof sheathing to be 1/2" CDX plywood or OSB and nailed and placed with 10d at 6" o.c edge and 12" o.c. field.
2. All framing member shall be Douglas Fir/Larch, U.N.O.
3. All roof and ceiling beam shall be support by 4x post with positive connection per detail 8/S7 & 11/S7, post shall be carried all the way to foundation. Under the post between floor joists shall filled with solid blocking.
4. Use "RR" hanger or LS70" at rafter or hip beam connection.
5. C1 denoted Simpson MST37 or CST 16 strap 48" length at collector and top plate splice. See detail 13/S7
6. Provide Simpson MST37 or CMSTC16 strap 48" length at and top plate splice. See detail 13/S7, 19/S7 & 12/S7
7. Roof framing to be 2 x 8 #2 rafter and 2 x 6 #2 ceiling joist at 24" o.c per plan.
8. Ridge beam per plan with minimum 4x4 king post at end
9. All 3/2 x PSL member connect ea other w/ simpson HHGU Hanger
10. All PSL member to be 2.0E parallam & ML to be 2.0E microlam LVL by weyerhaeuser manufacture member.

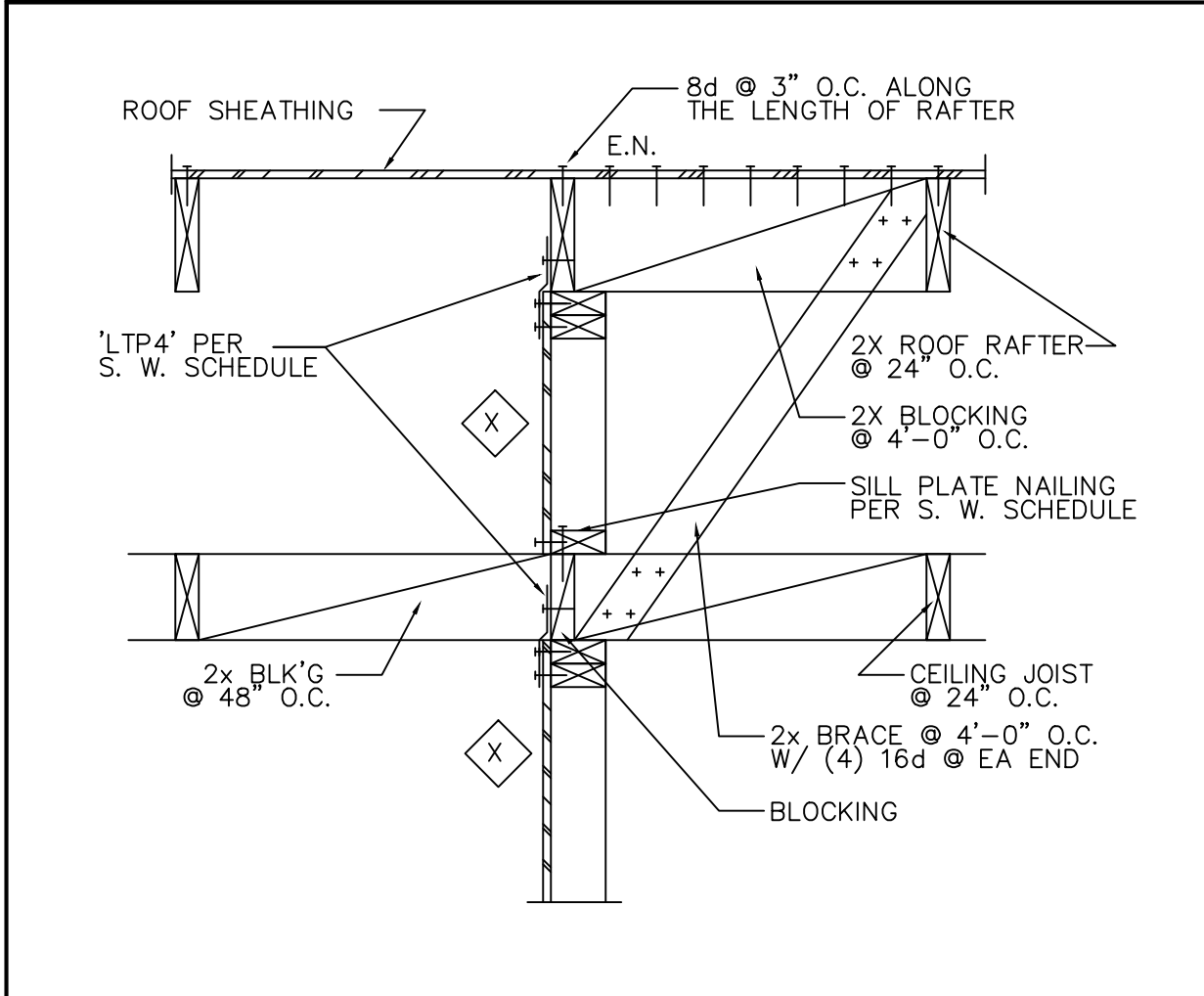
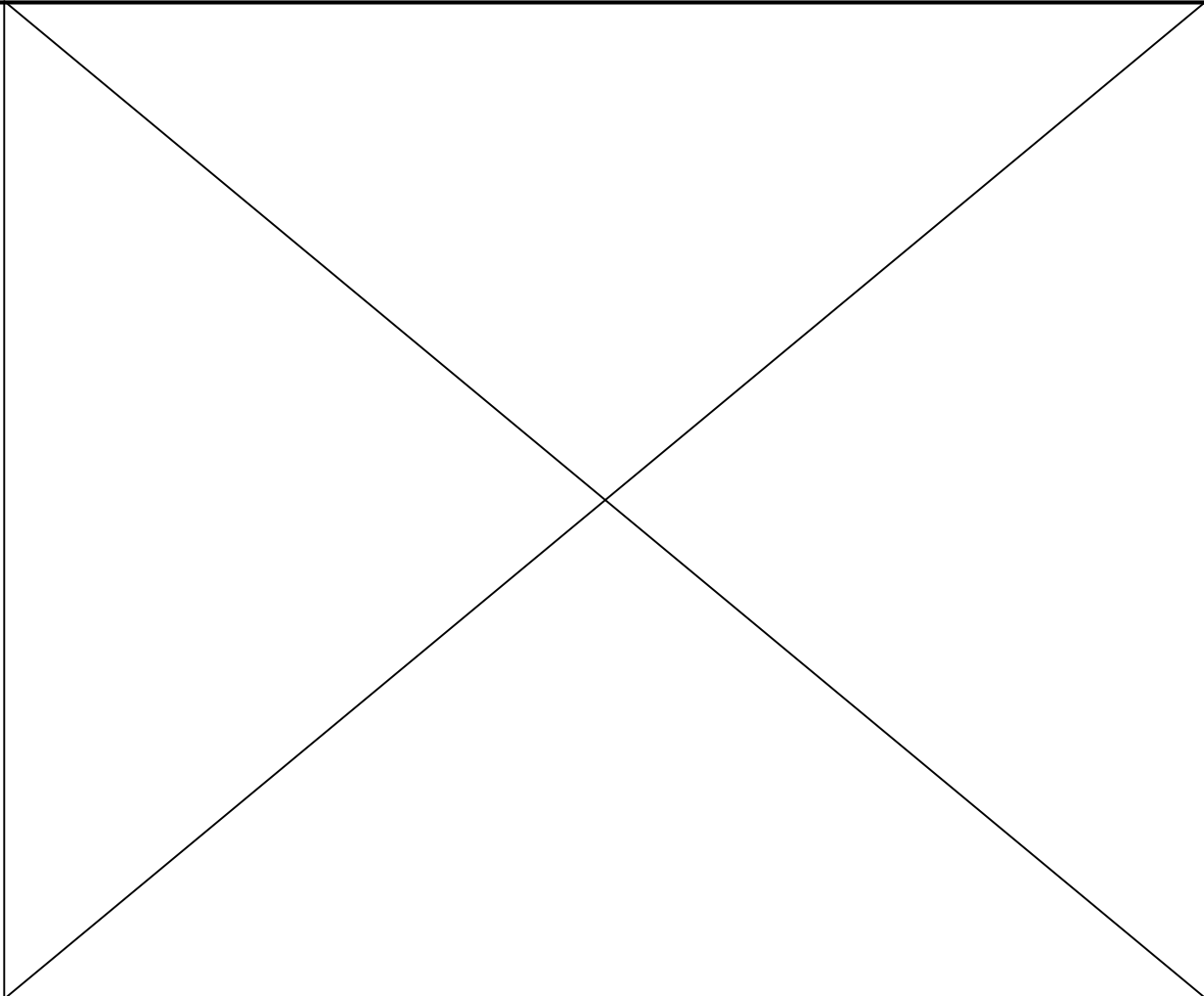
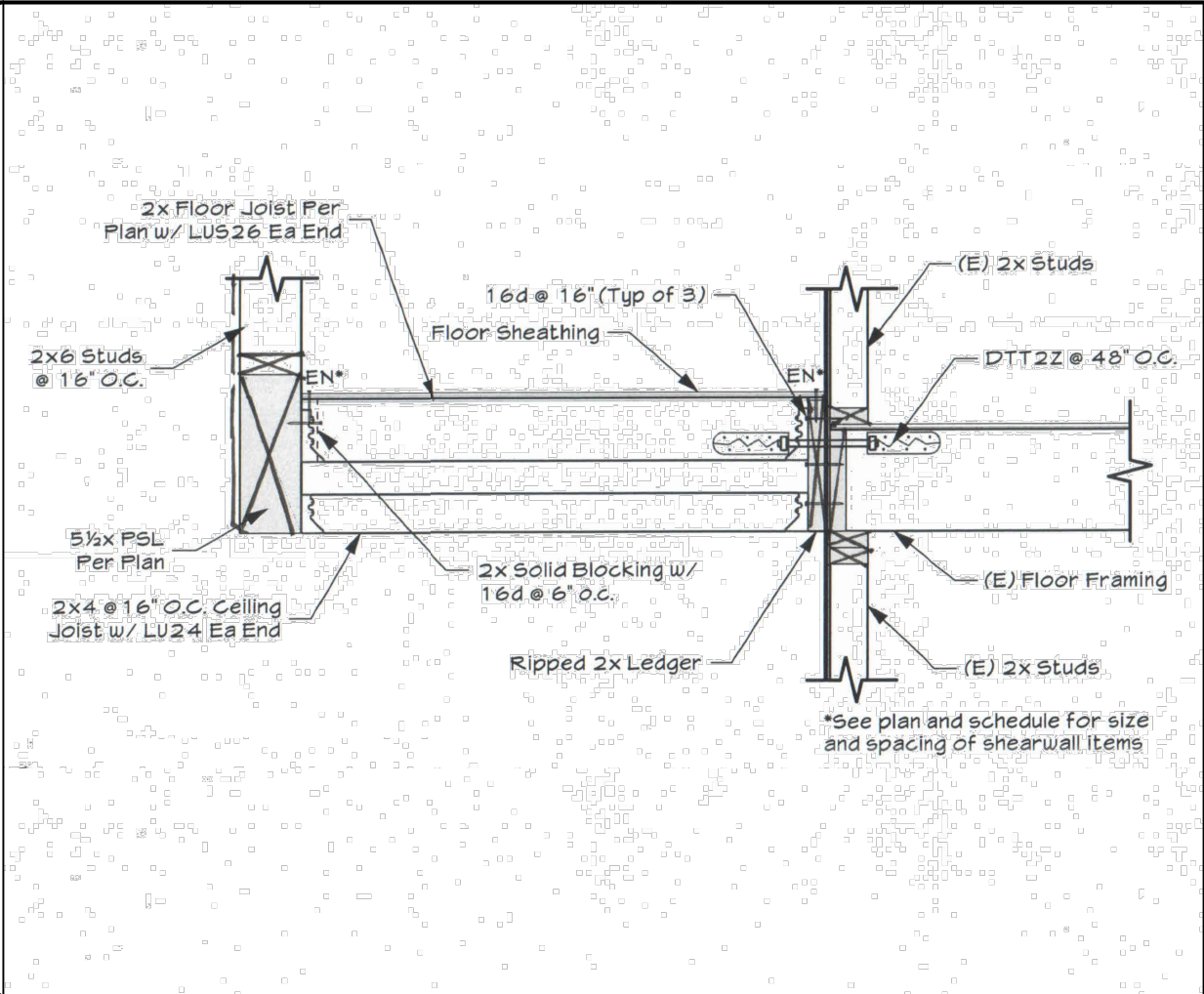
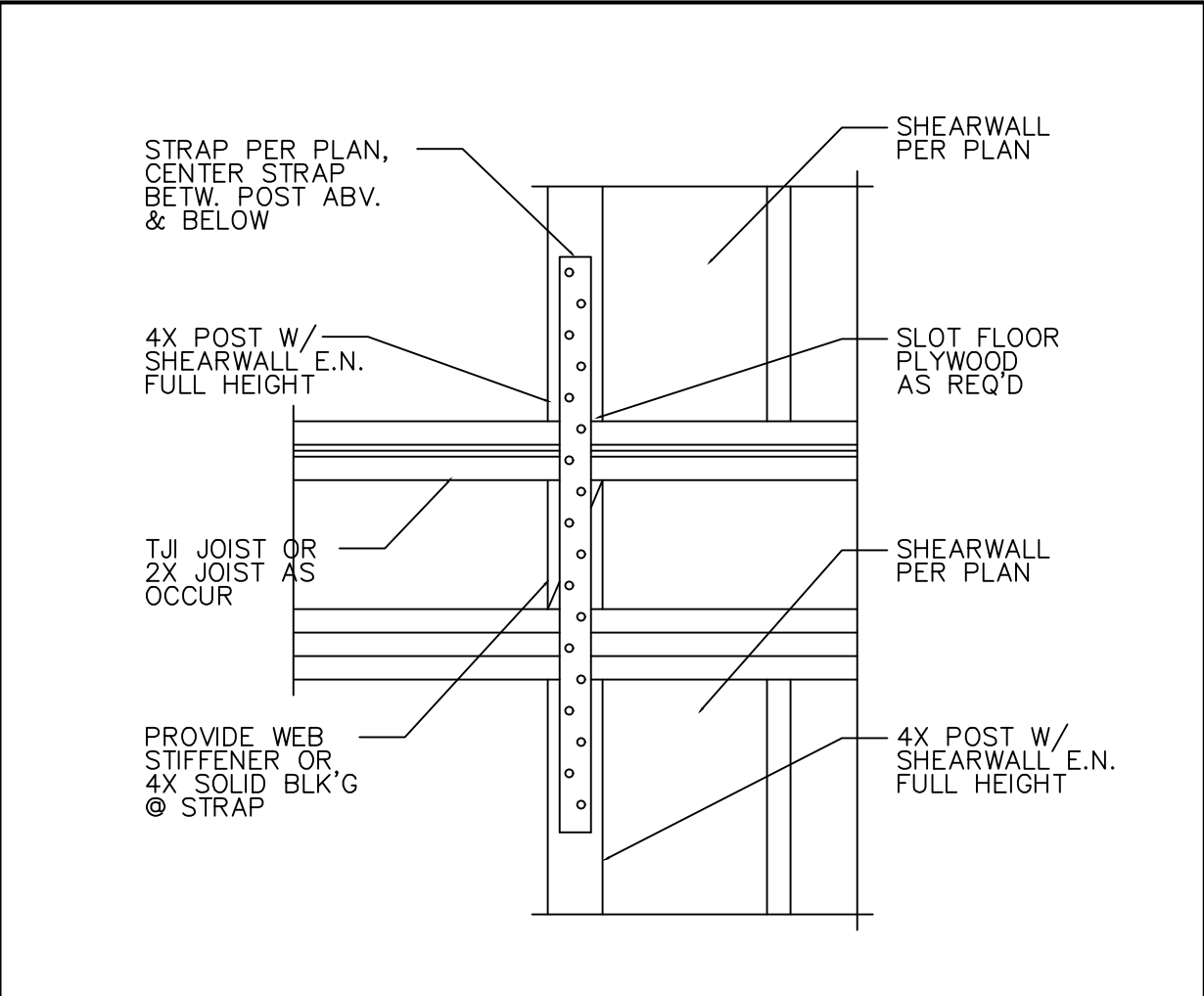
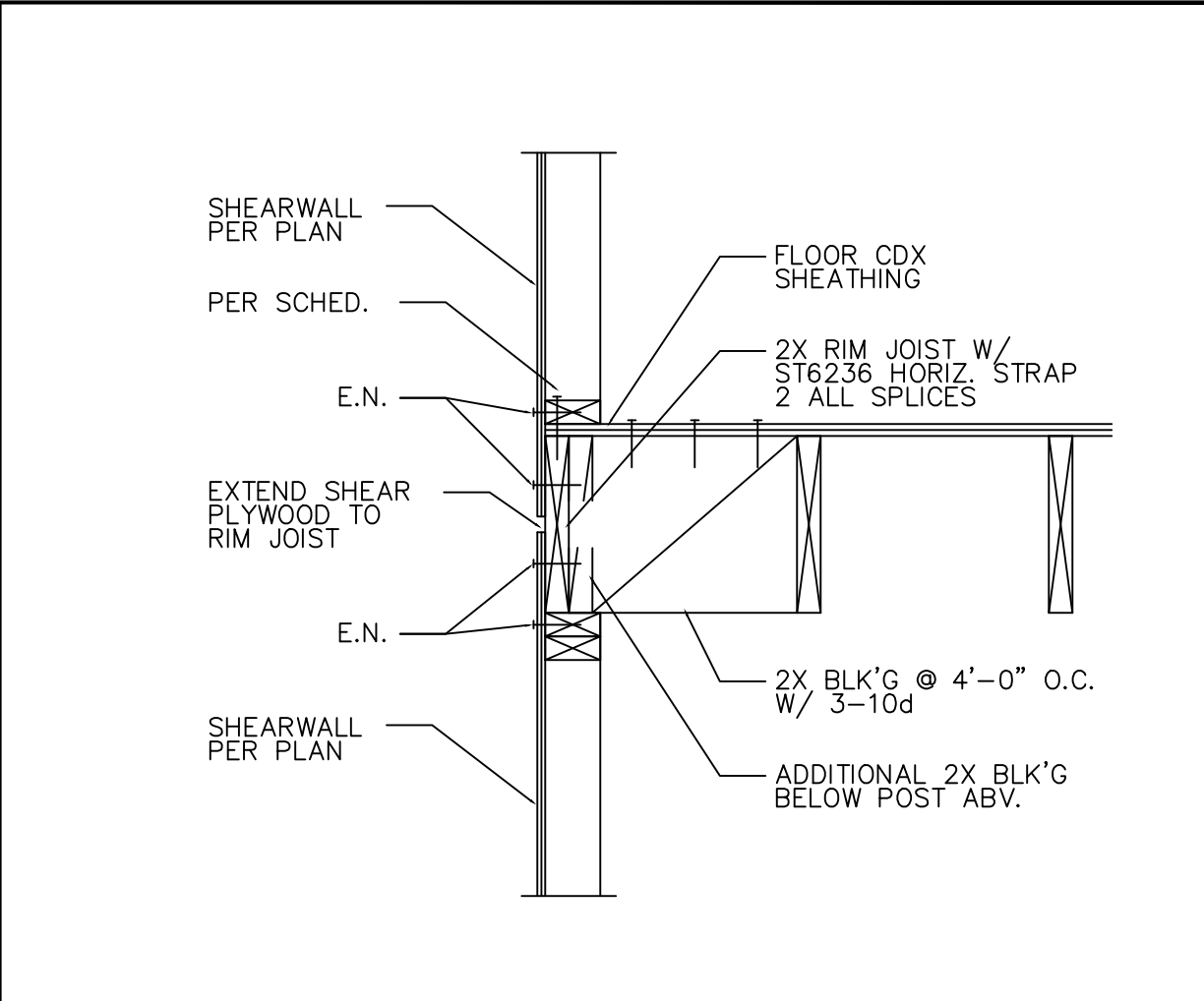
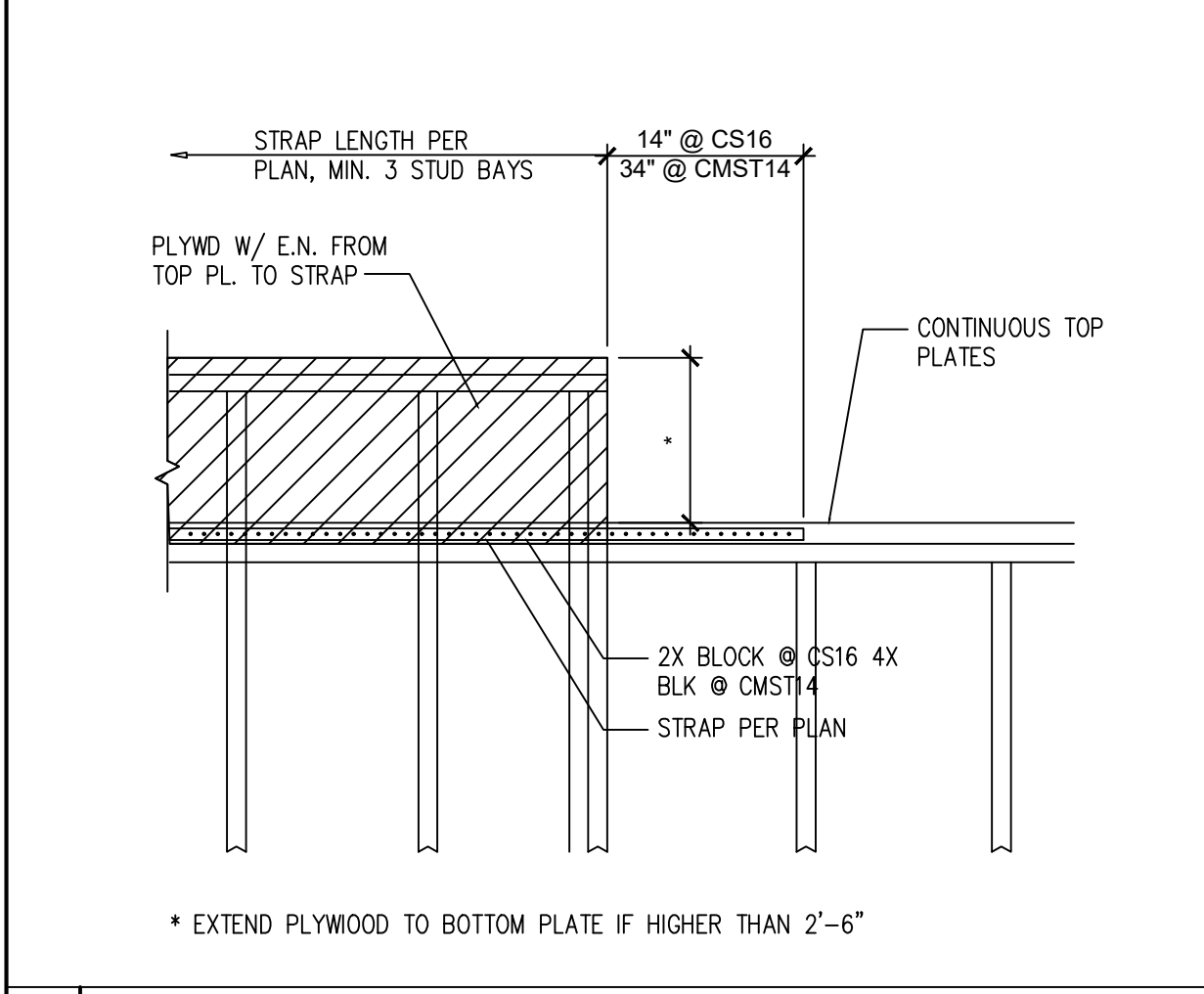
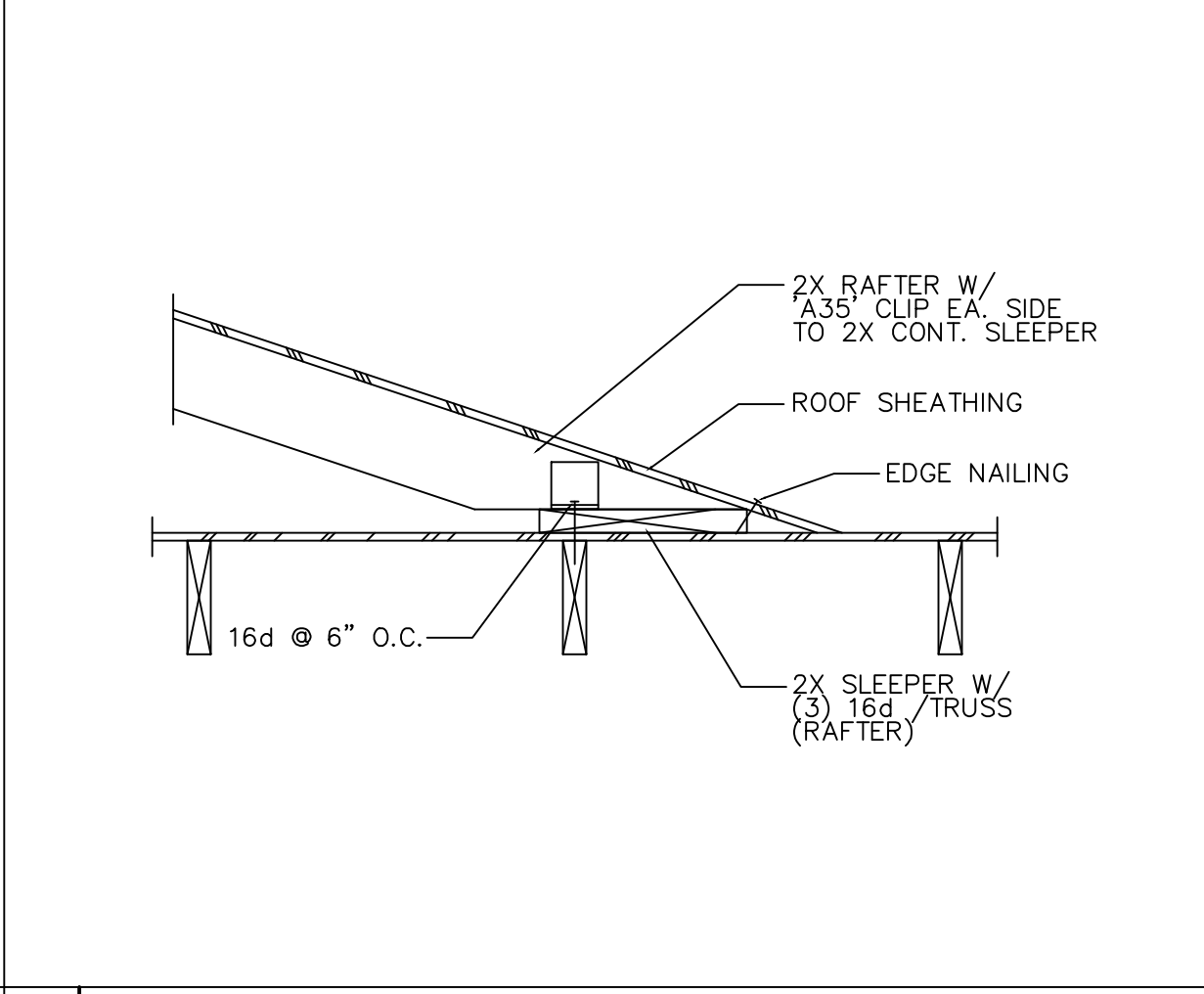
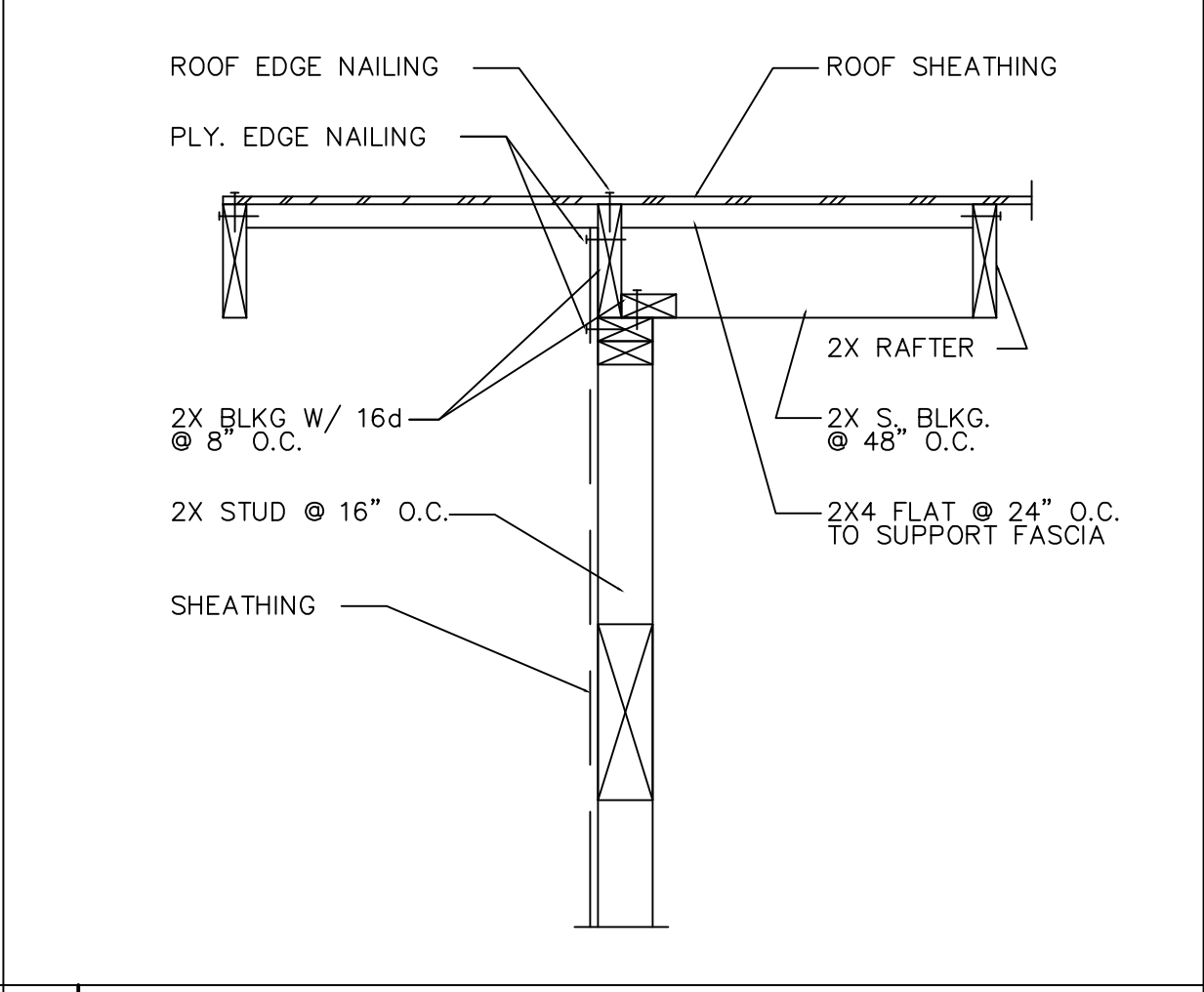
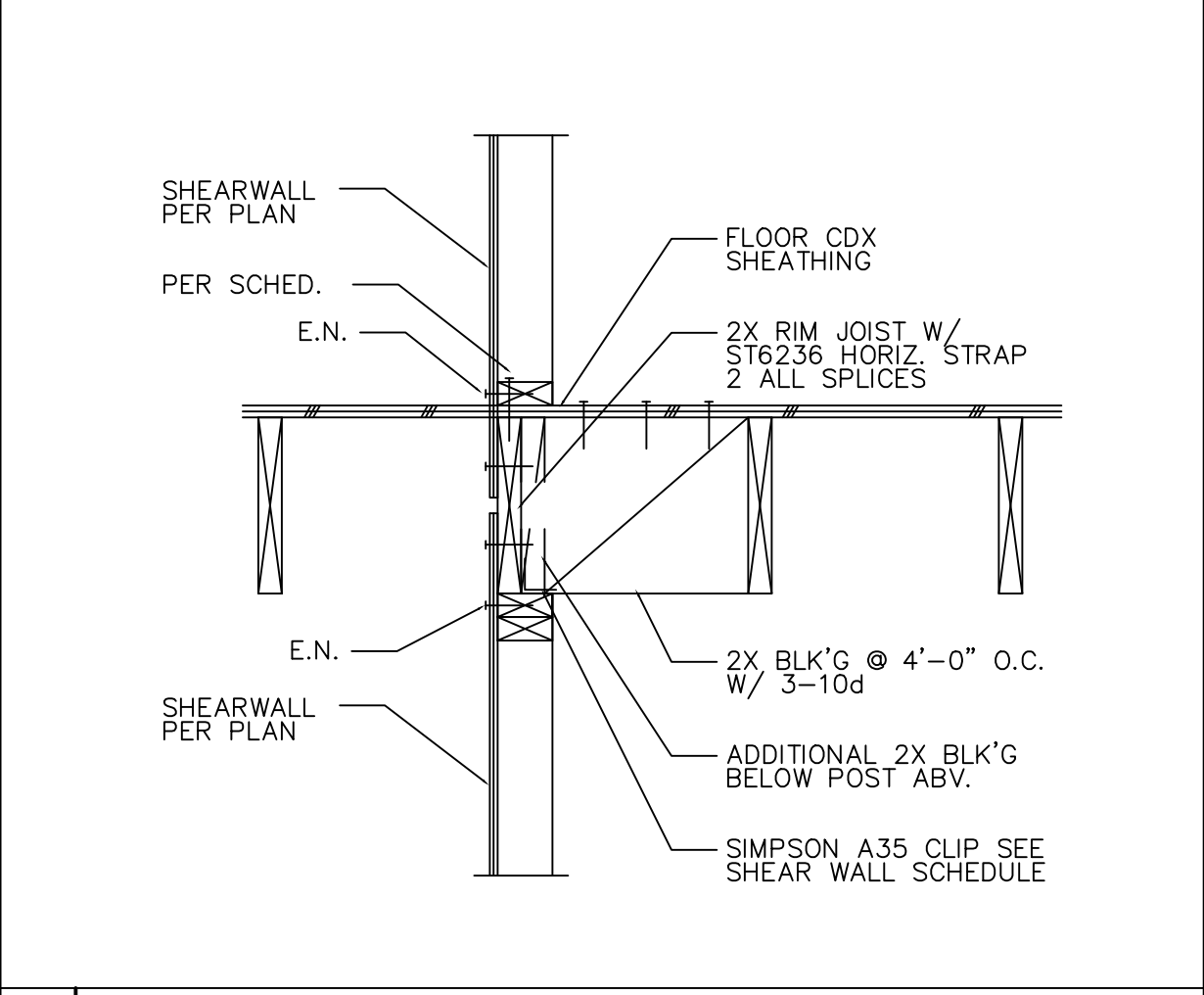
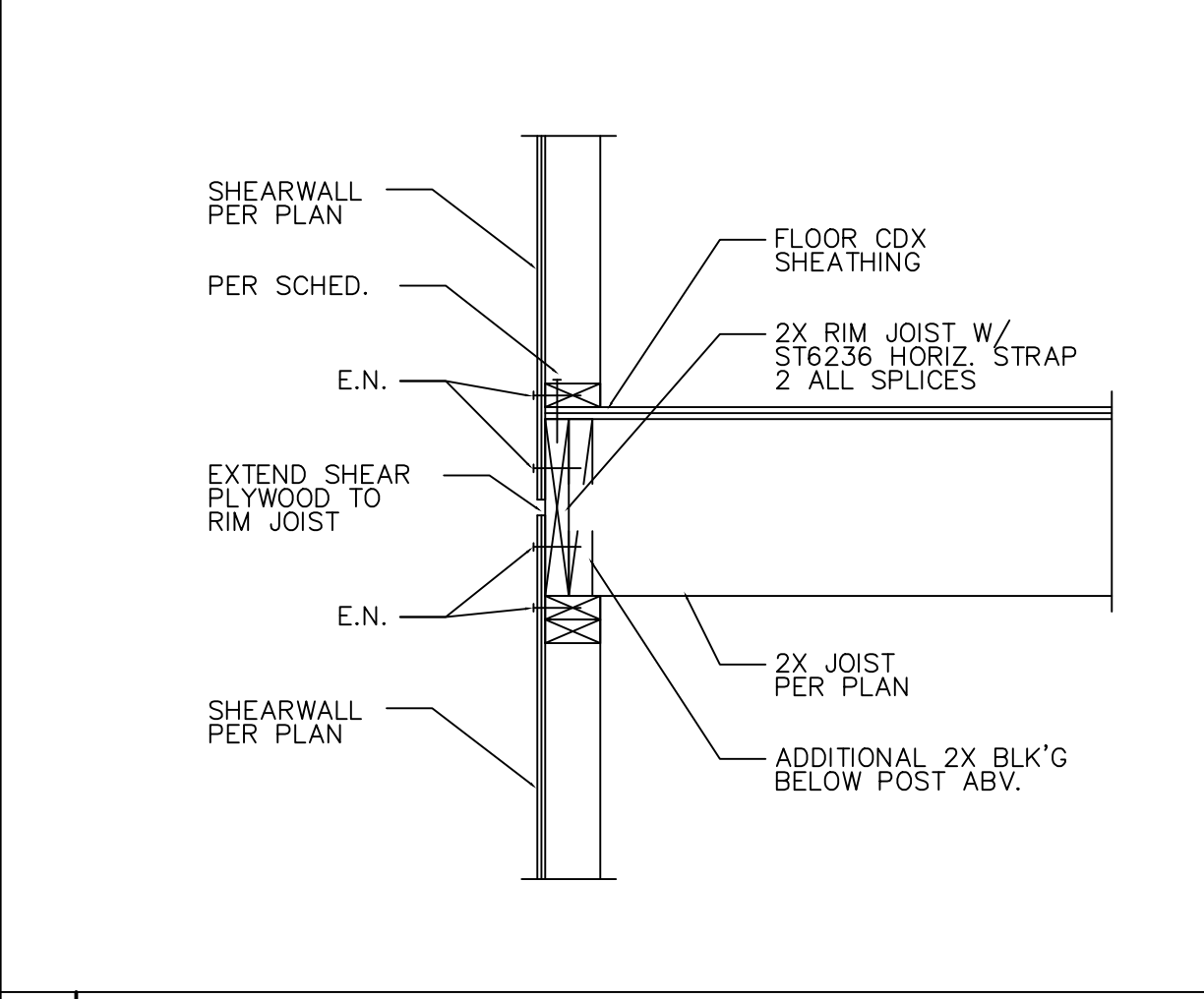
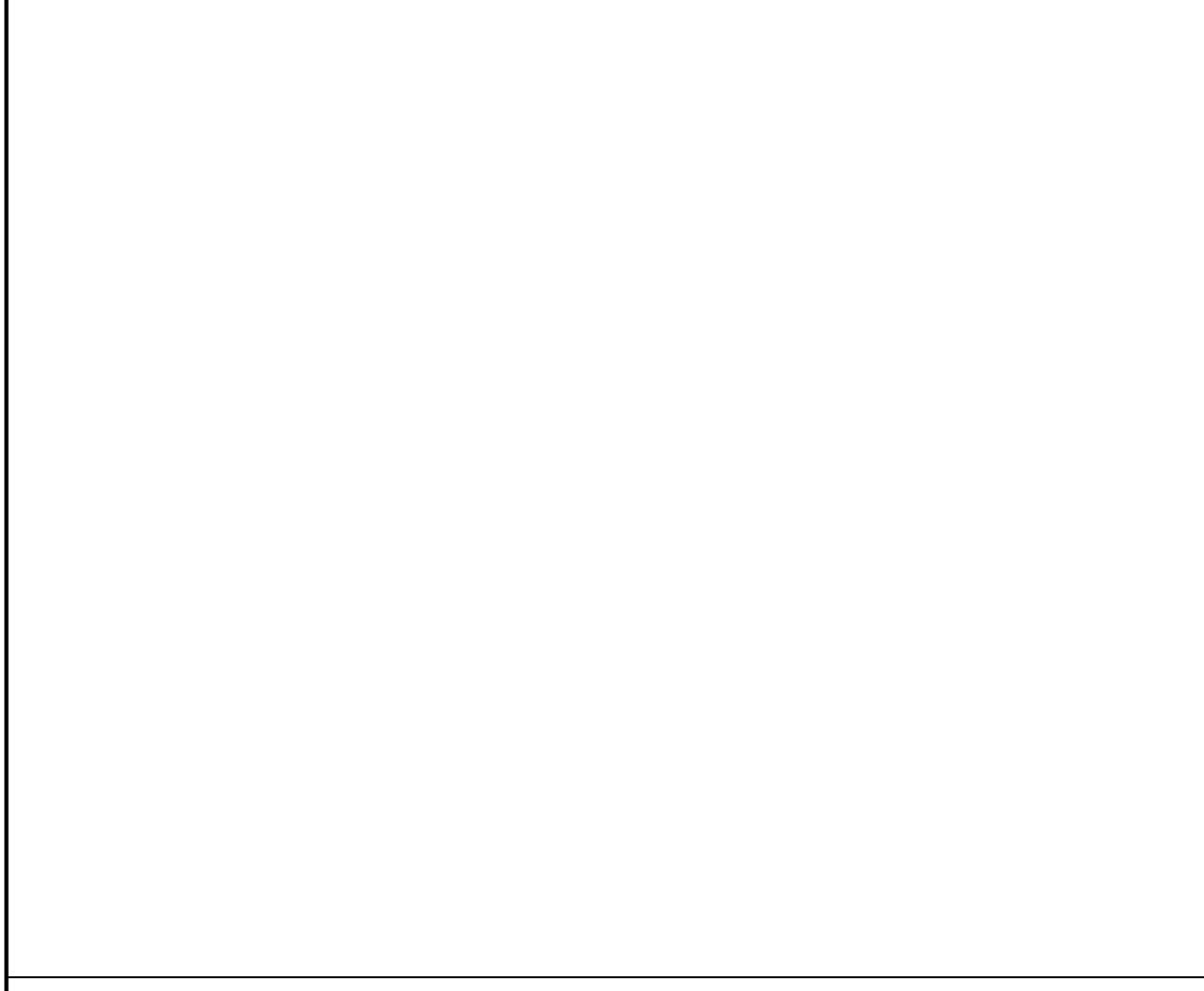
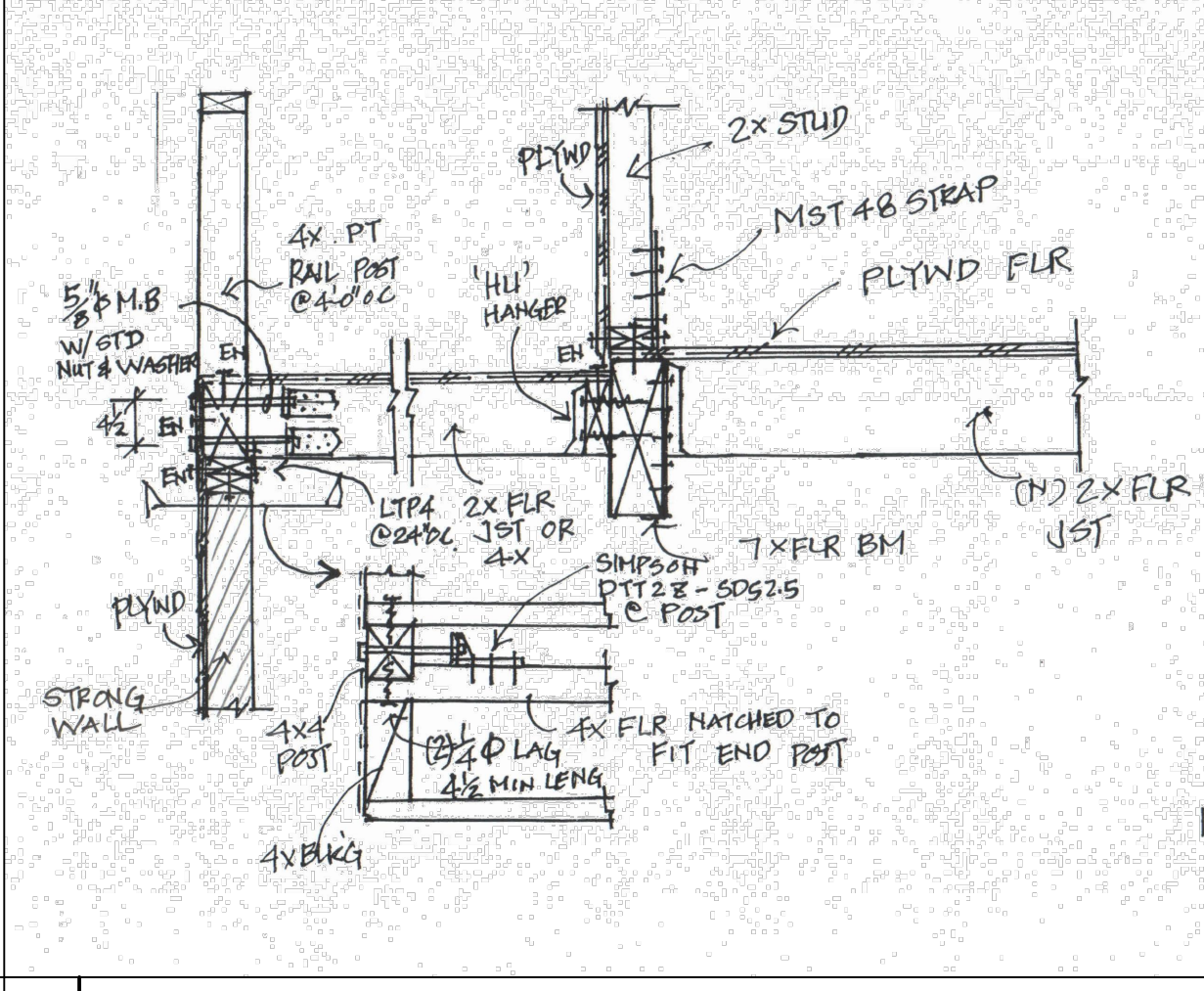
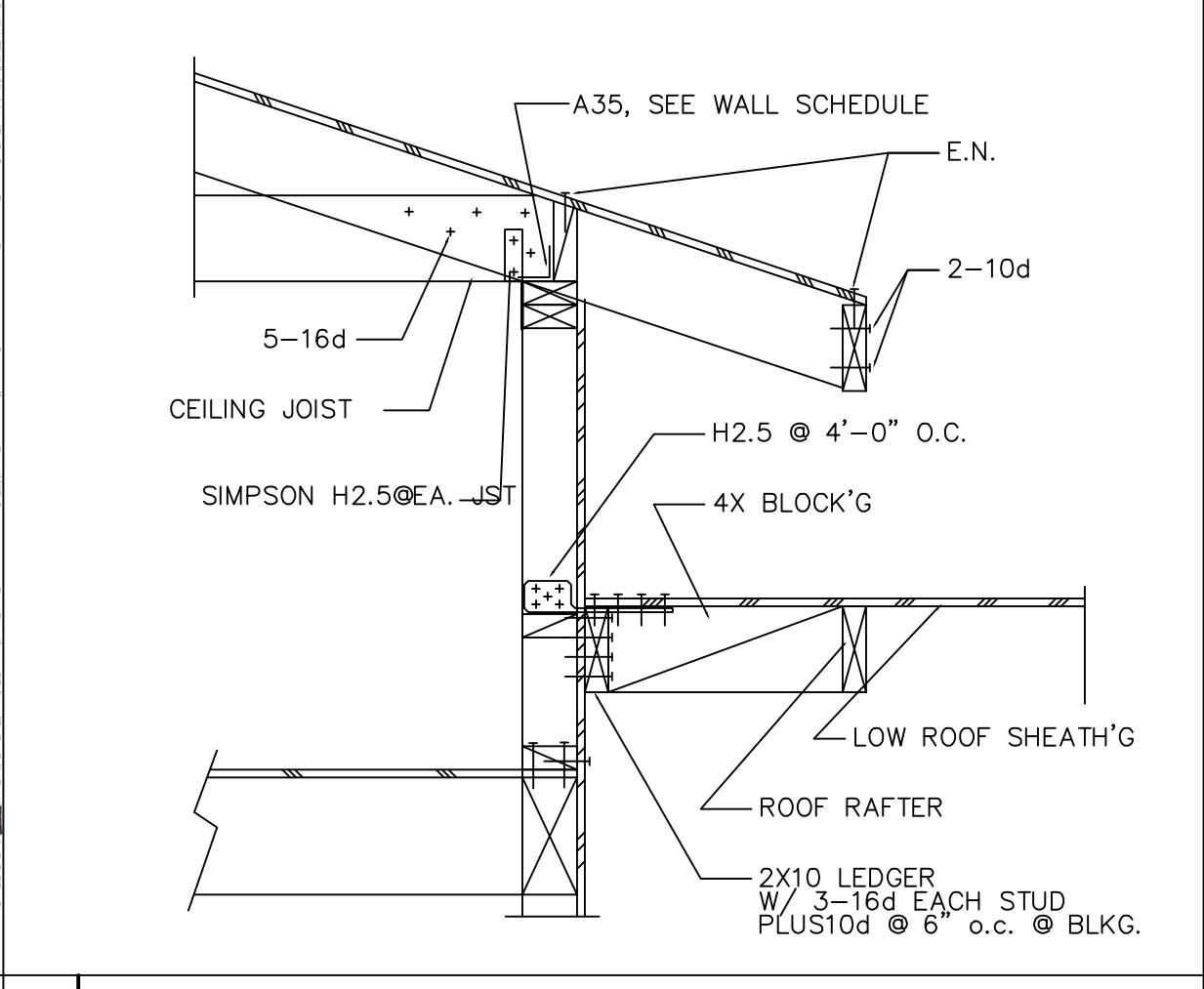
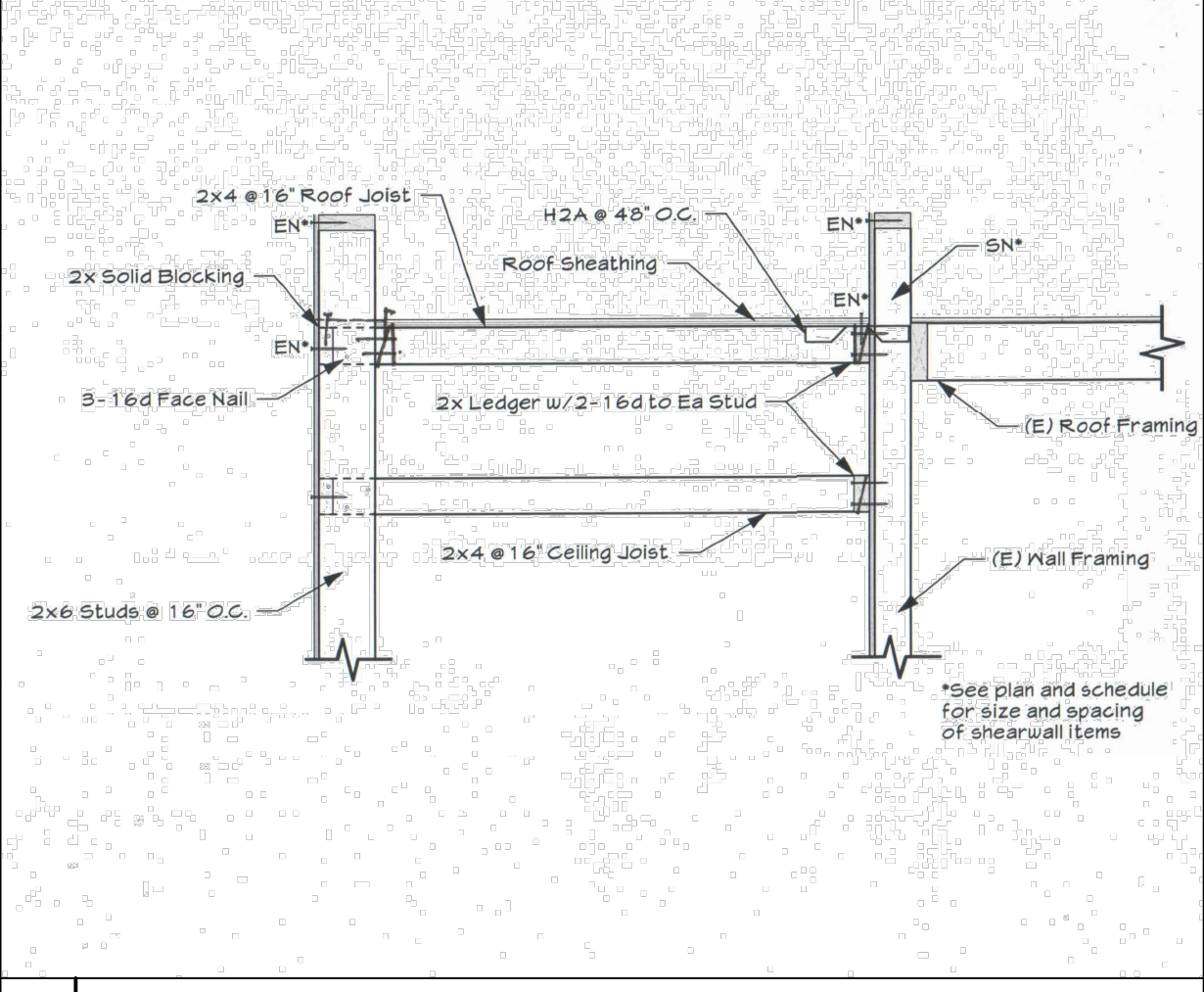
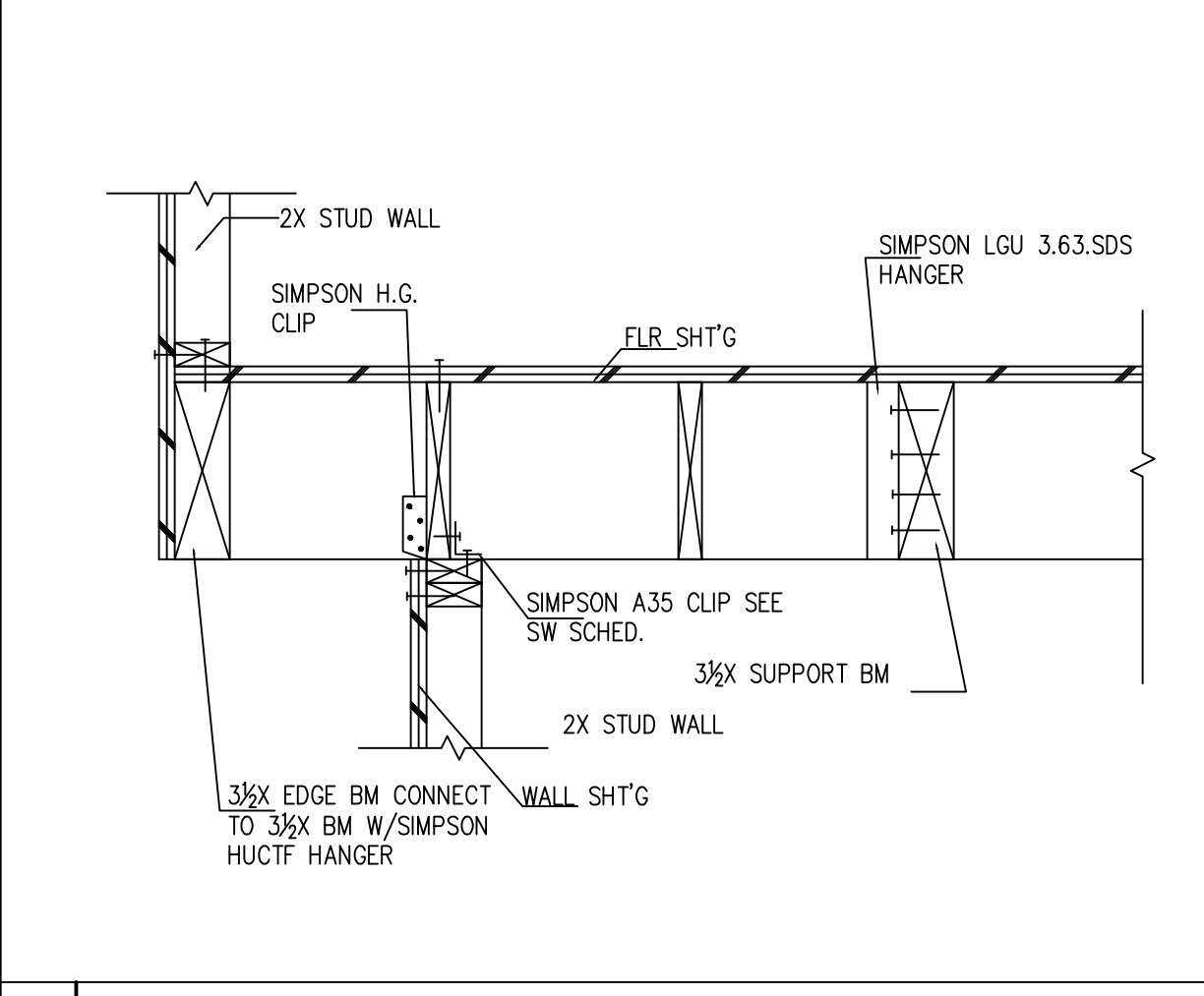
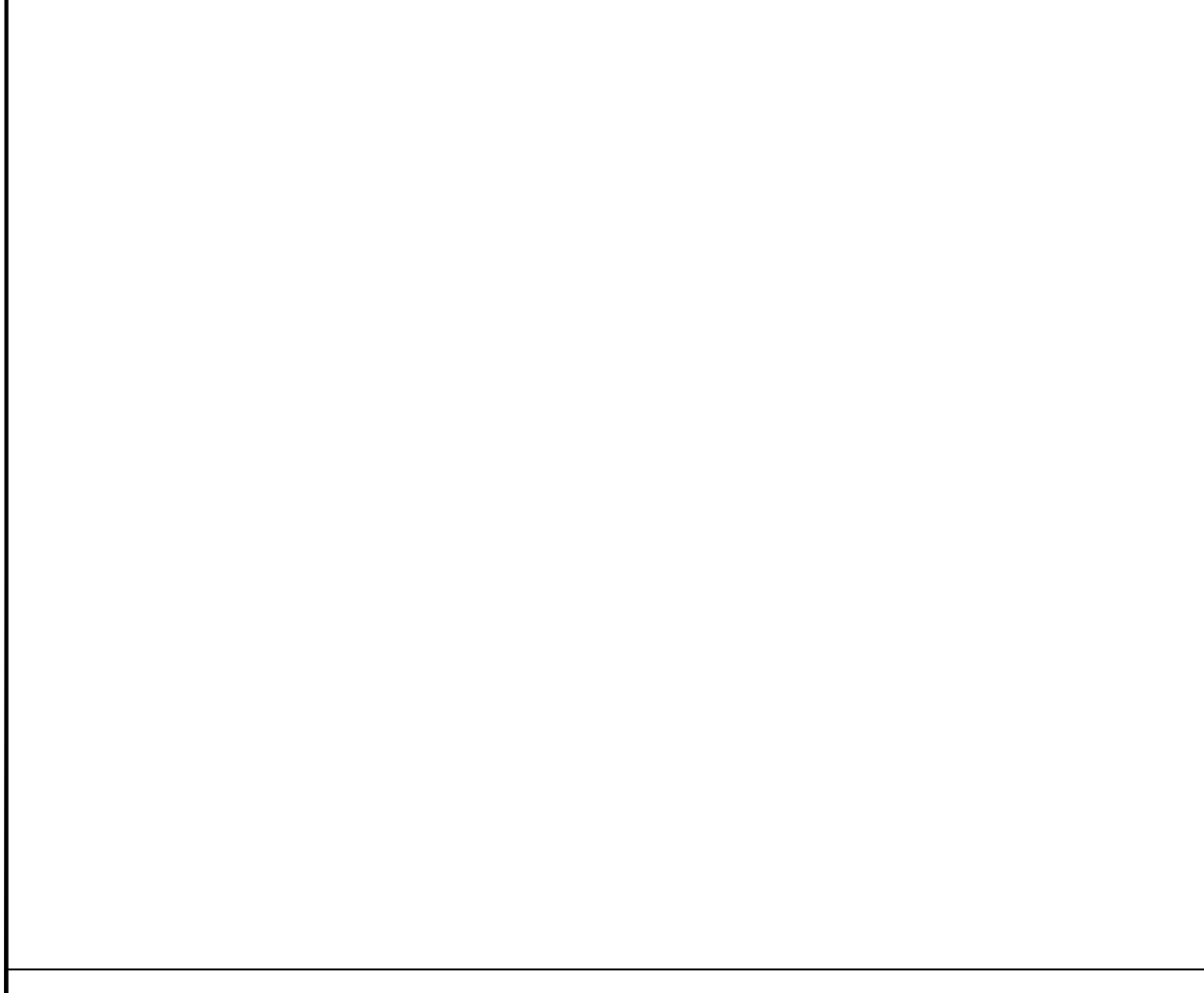
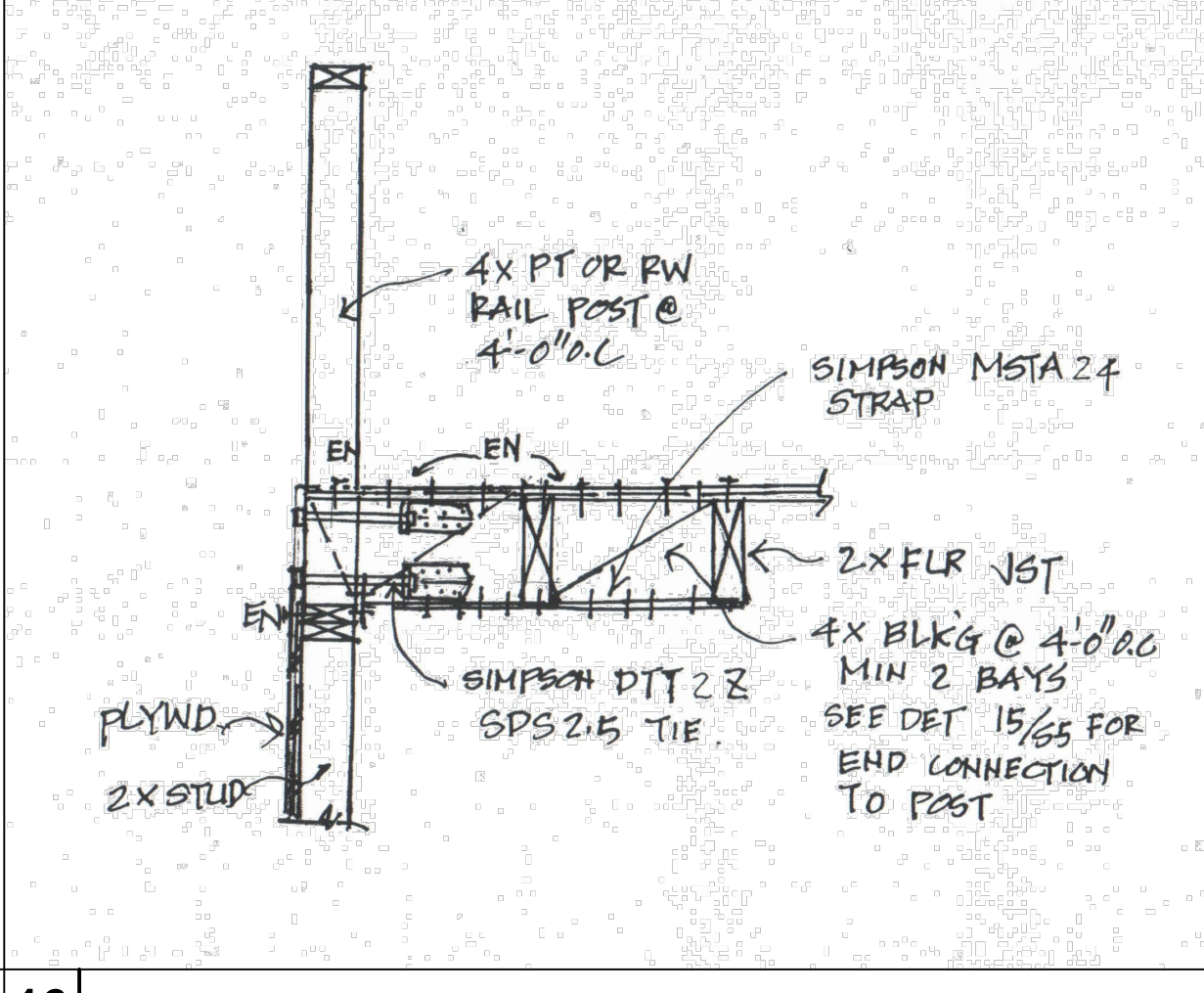
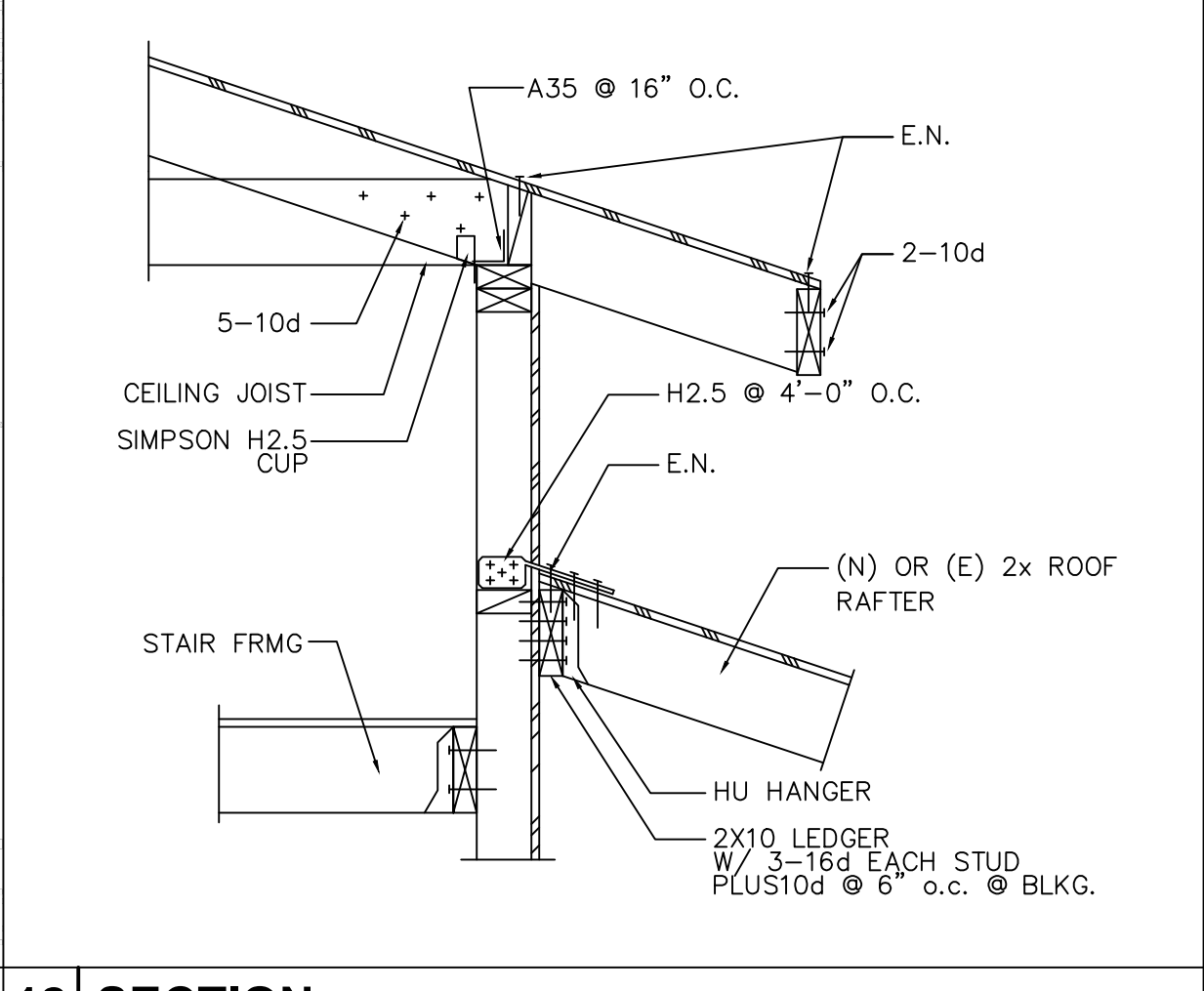
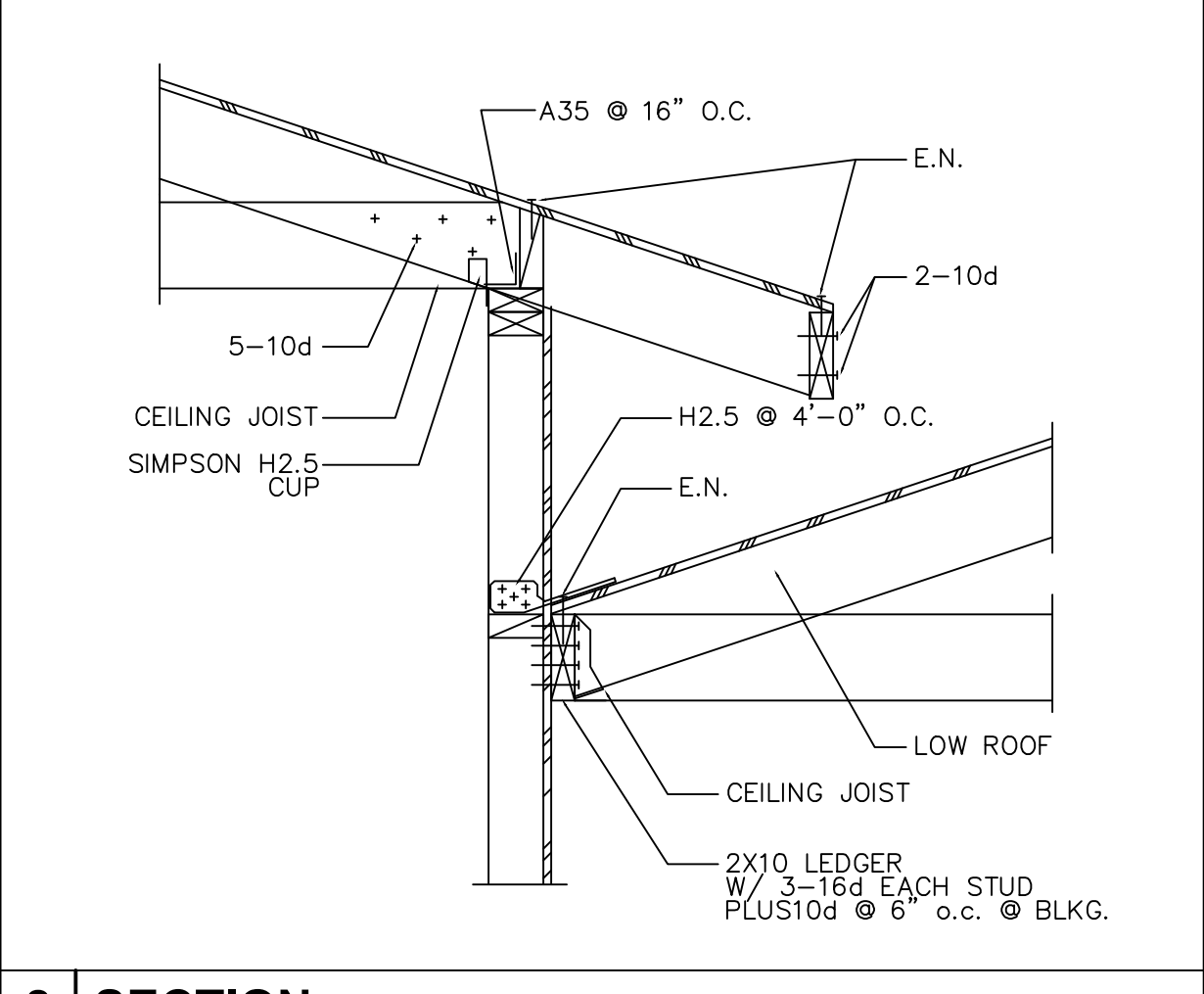
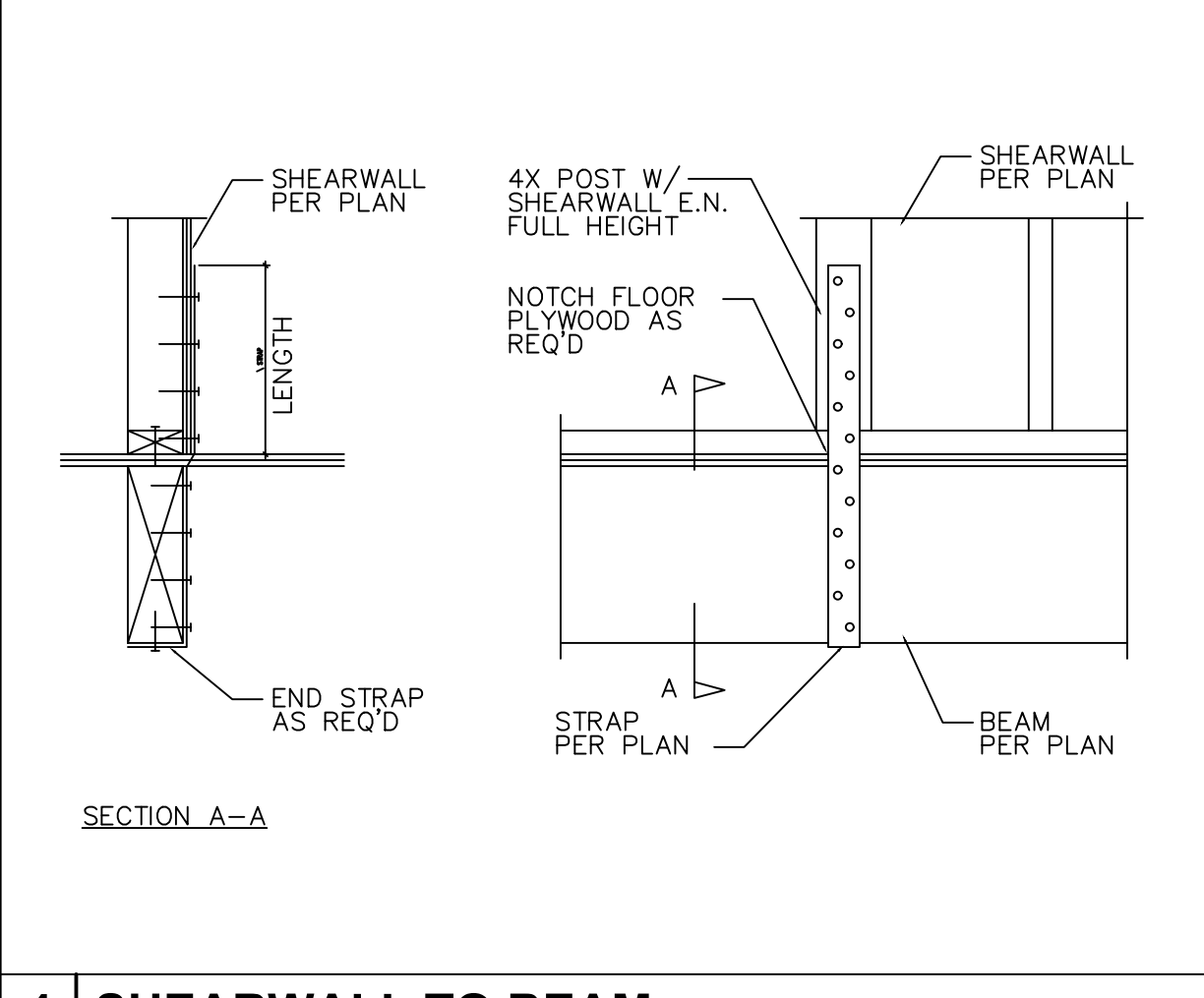





CAL GREEN 2019 MANDATORY MEASURES

1. JOINTS AND OPENINGS. ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS OR OTHER OPENINGS IN PLATES AT EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS WITH CEMENT MORTAR, CONCRETE MASONRY OR SIMILAR METHOD ACCEPTABLE TO THE ENFORCING AGENCY.
2. MOISTURE CONTENT OF BUILDING MATERIALS USED IN WALL AND FLOOR FRAMING IS CHECKED BEFORE ENCLOSURE.

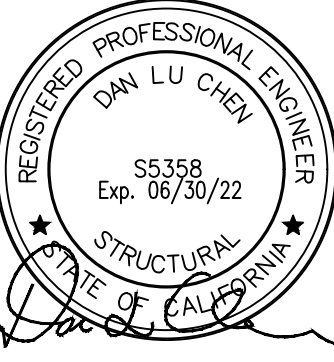






				
17 INTERIOR S.W. @ ROOF	13	9	5	1 2ND FLR. JST. PARALLEL
				
18 BEAM @ S.W.	14 CALIFORNIA FRAMING	10 EXTERIOR ROOF GABLE END	6 INTERIOR FLOOR JOIST	2 FLR. JST. PERPENDICULAR
				
15	11 SECTION @ HIGH & LOWER ROOF	7	3 CANTILEVER SUPPORT	
				
16	12 SECTION	8 SECTION	4 SHEARWALL TO BEAM	
				

STRUCTURE ENGINEER  
DAN L. CHEN S.E.  
T 510 579 8230  
47849 Masters Ct.  
Fremont, CA 94539

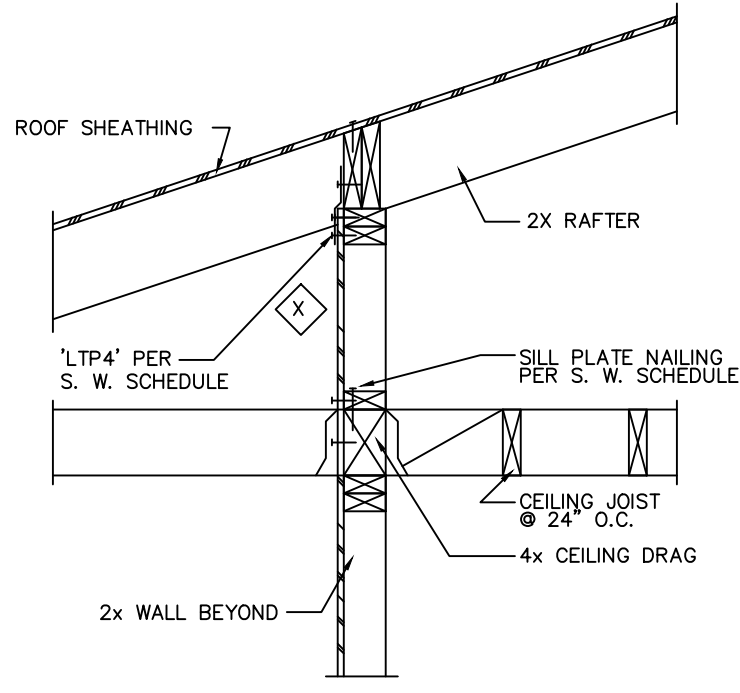
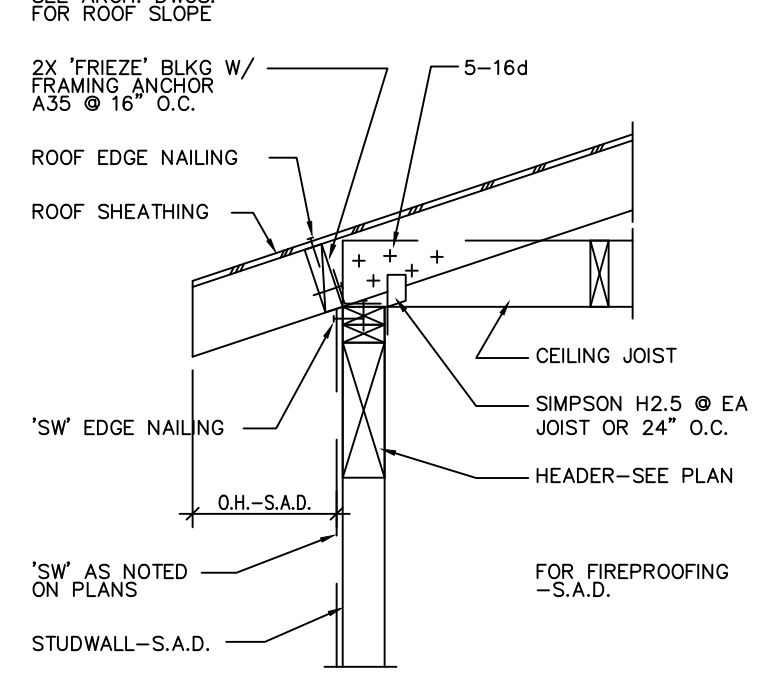
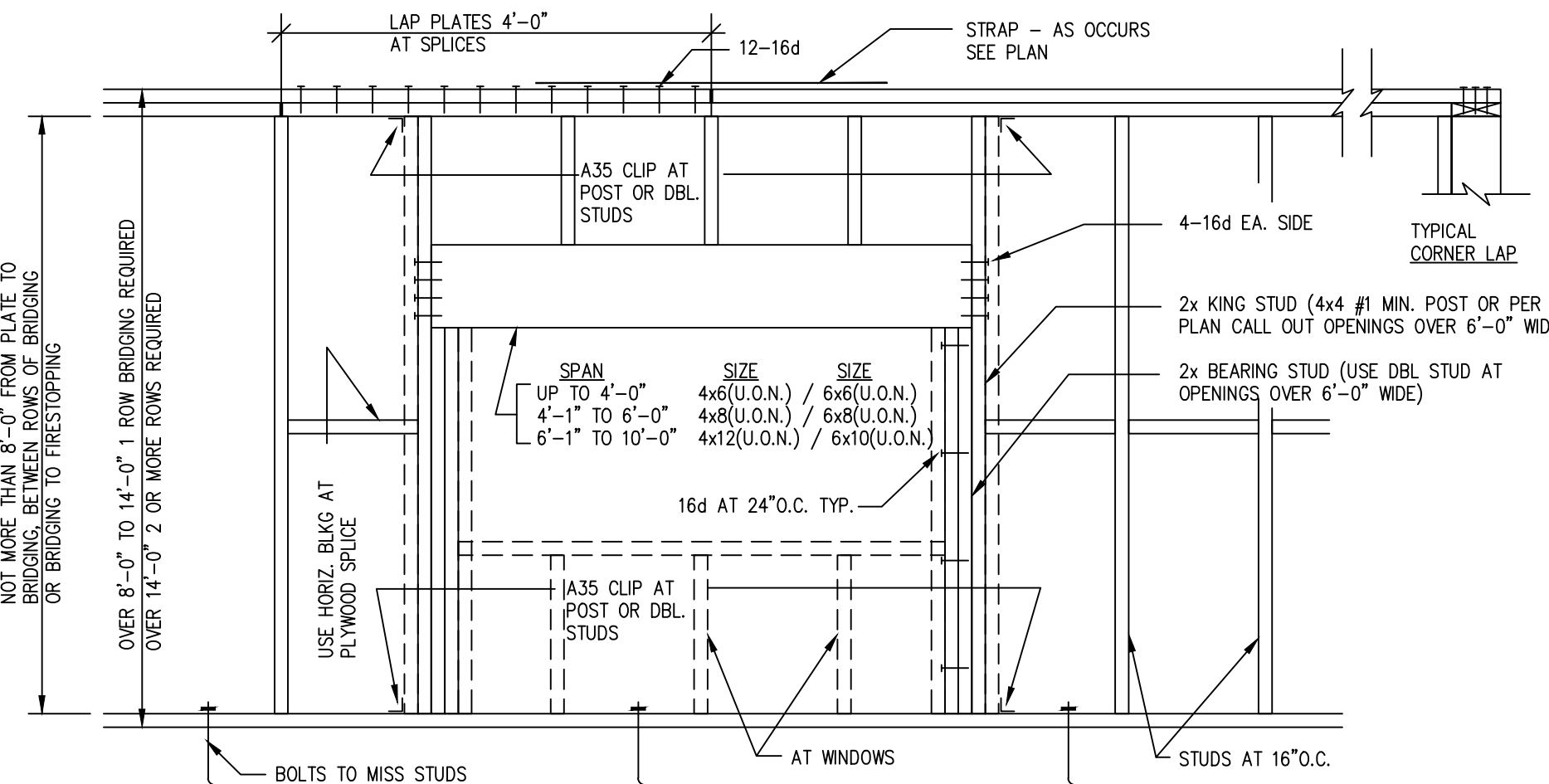
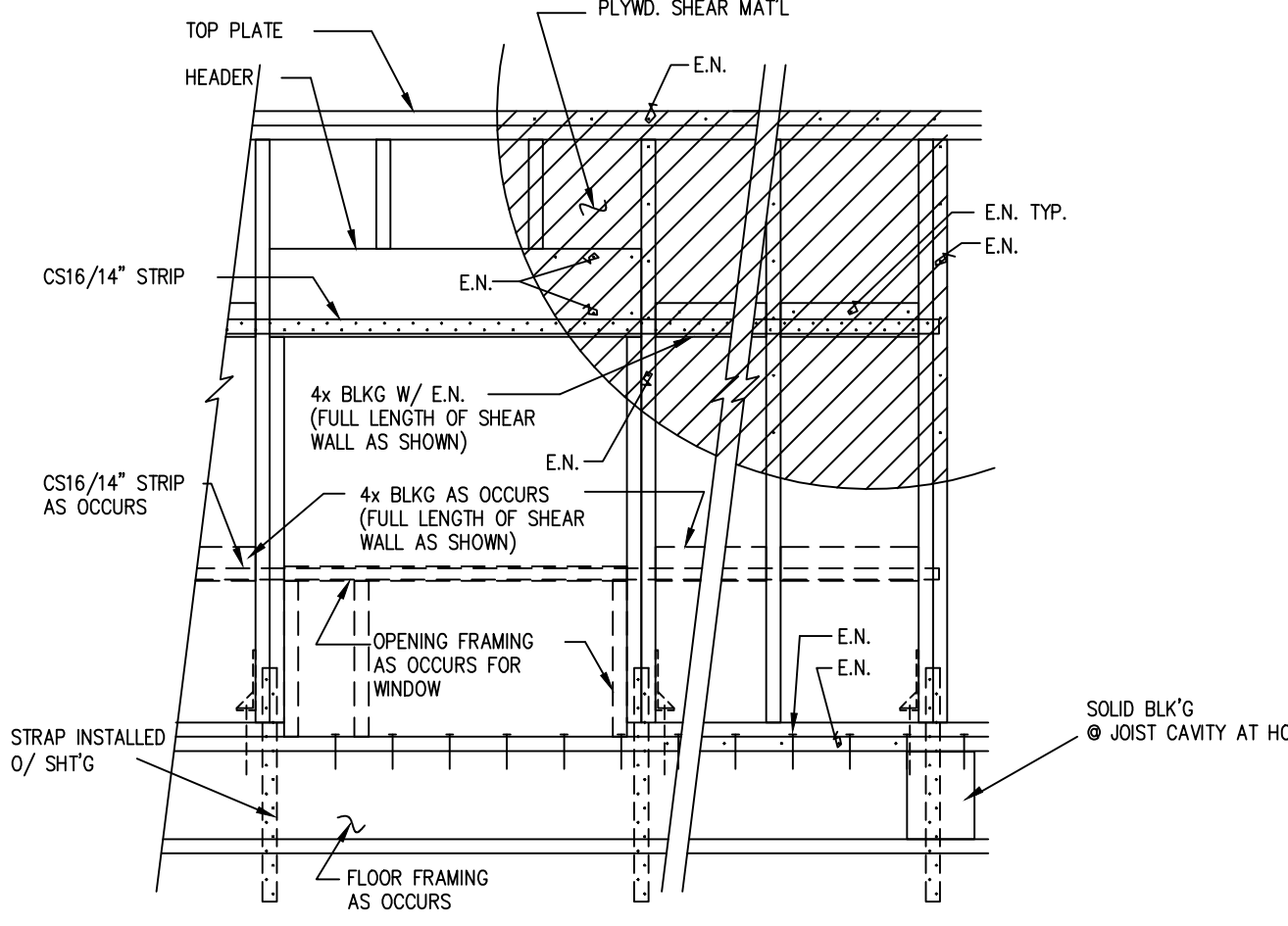
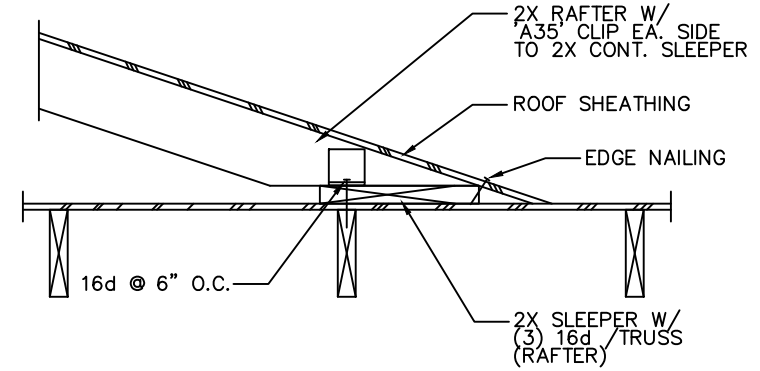
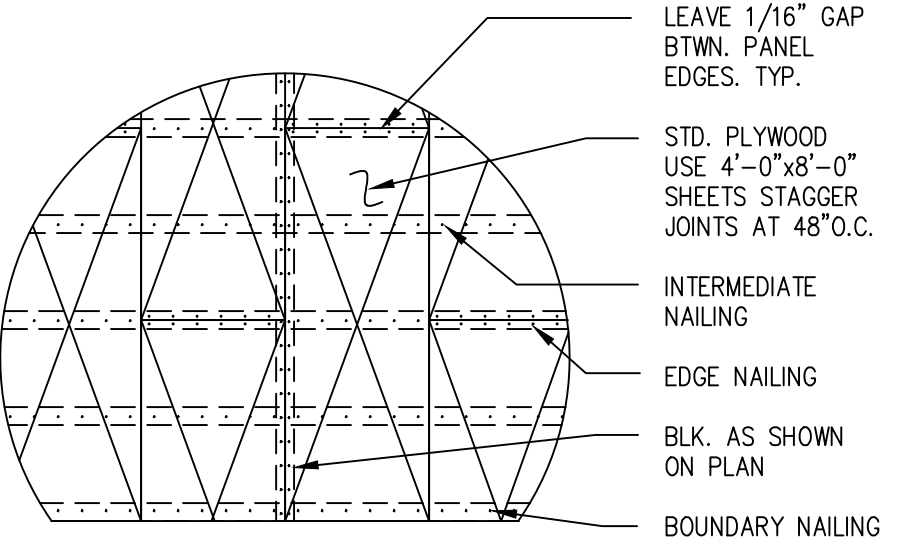
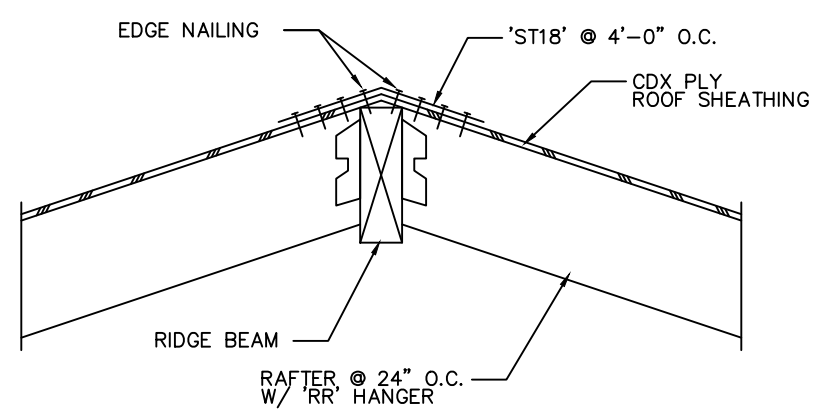
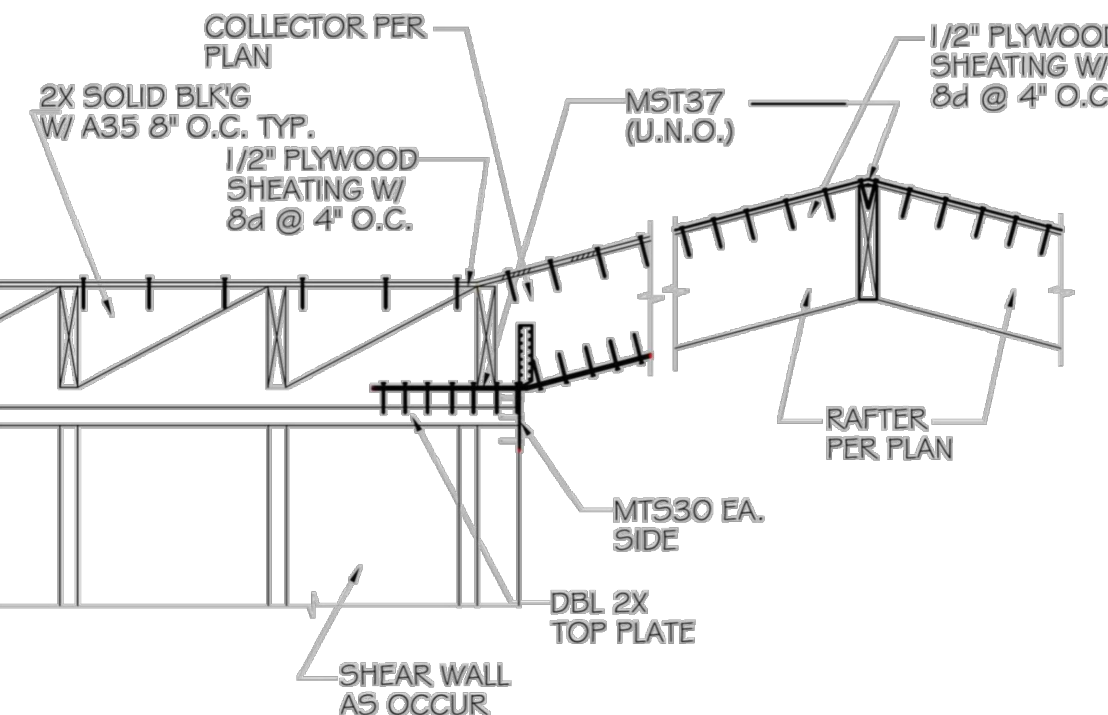
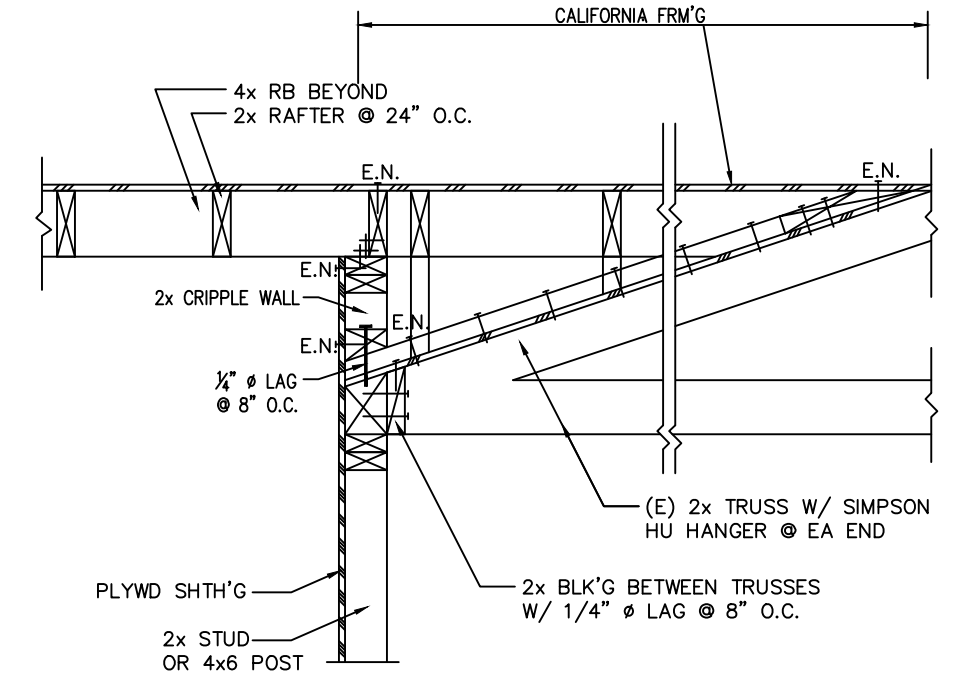
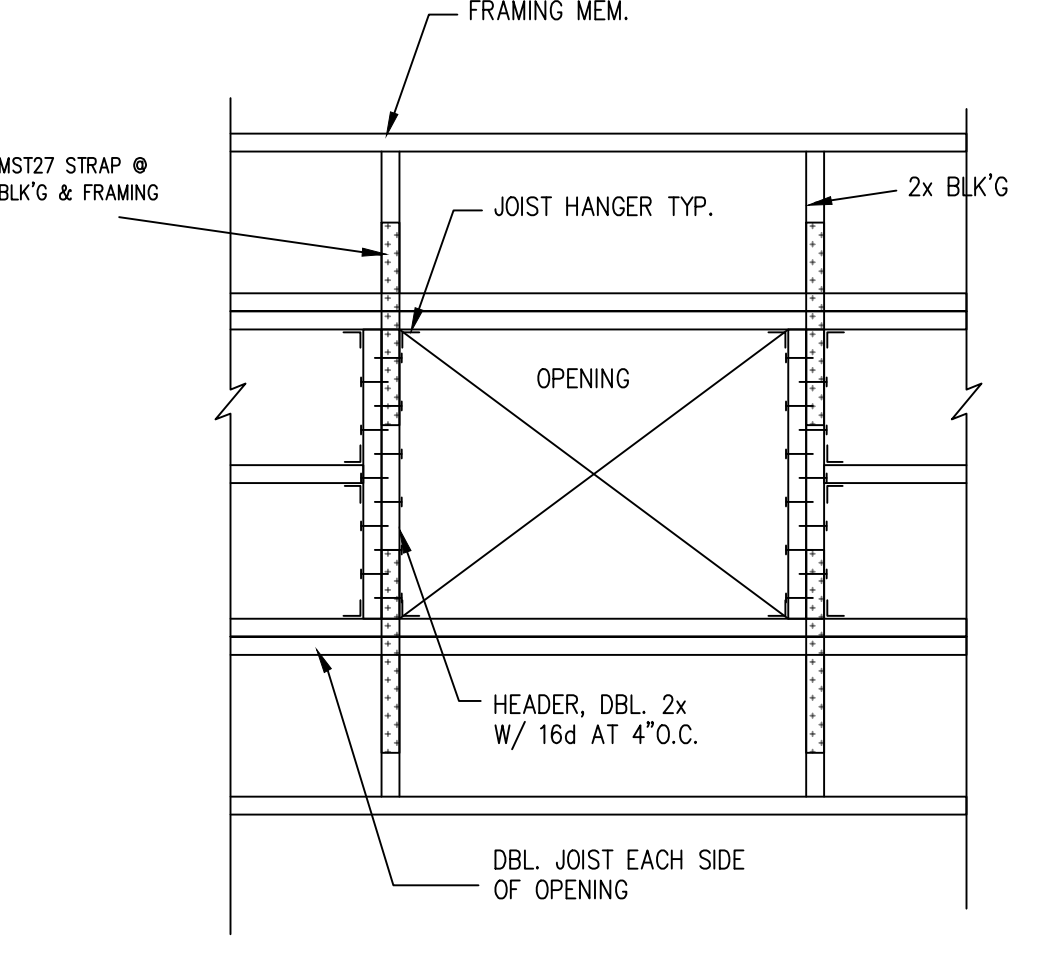
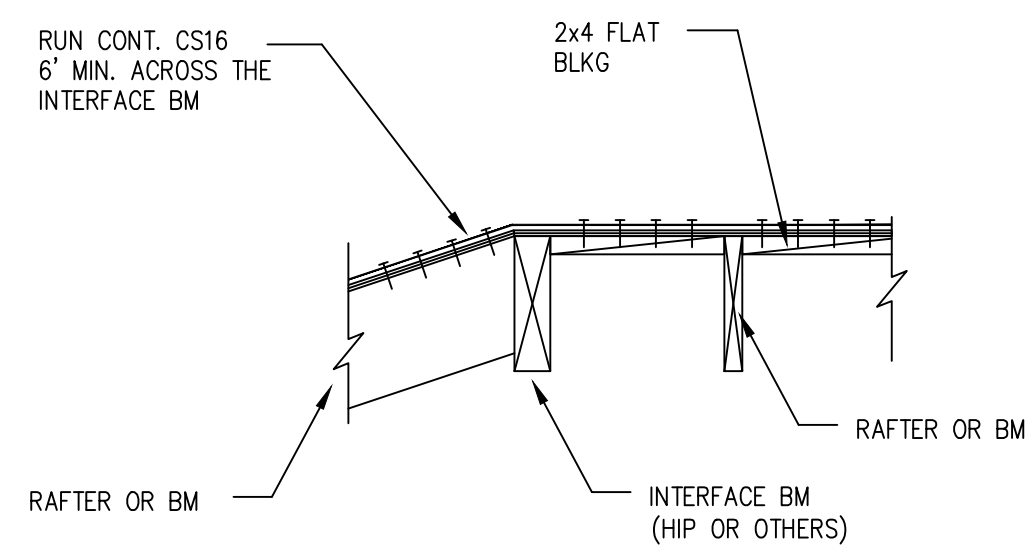
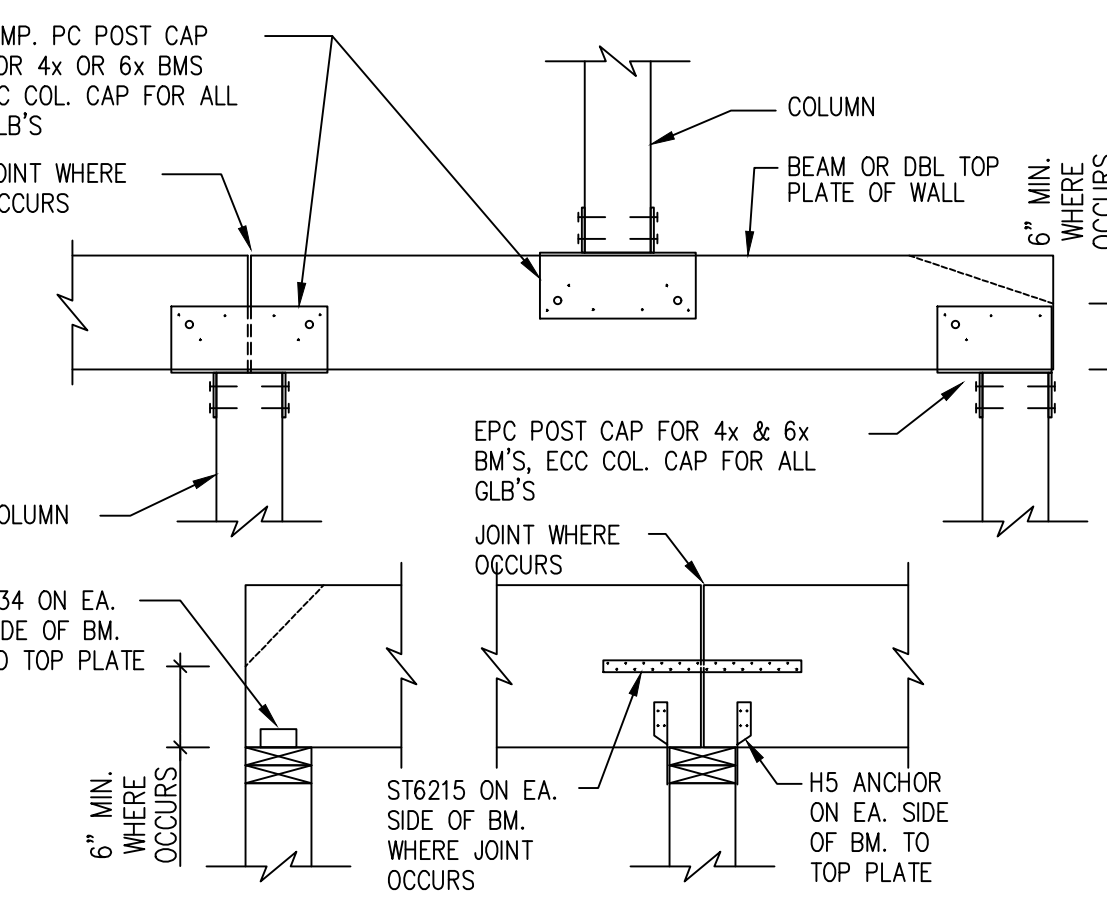
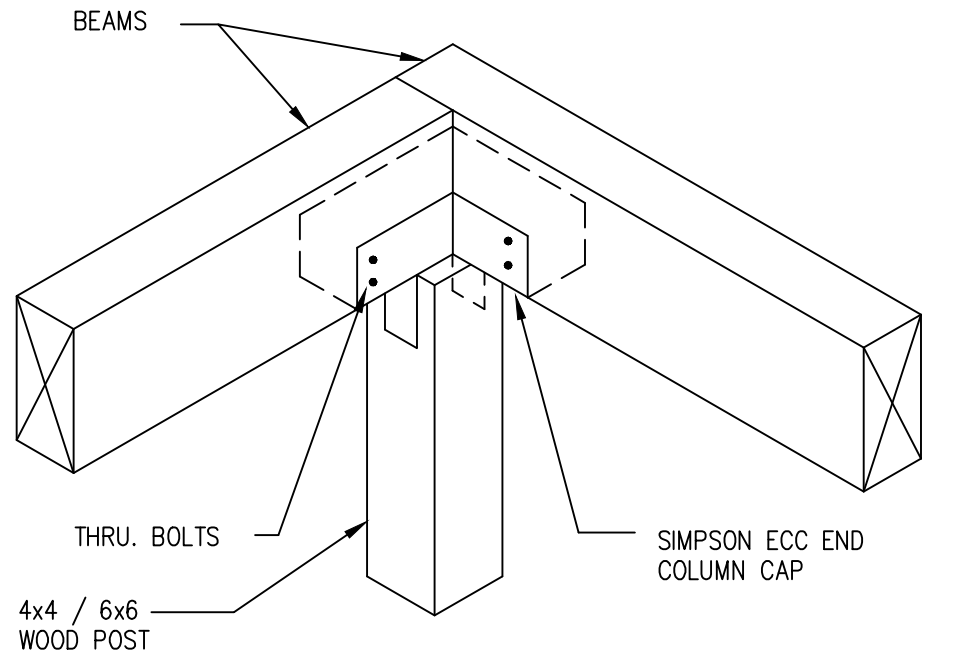
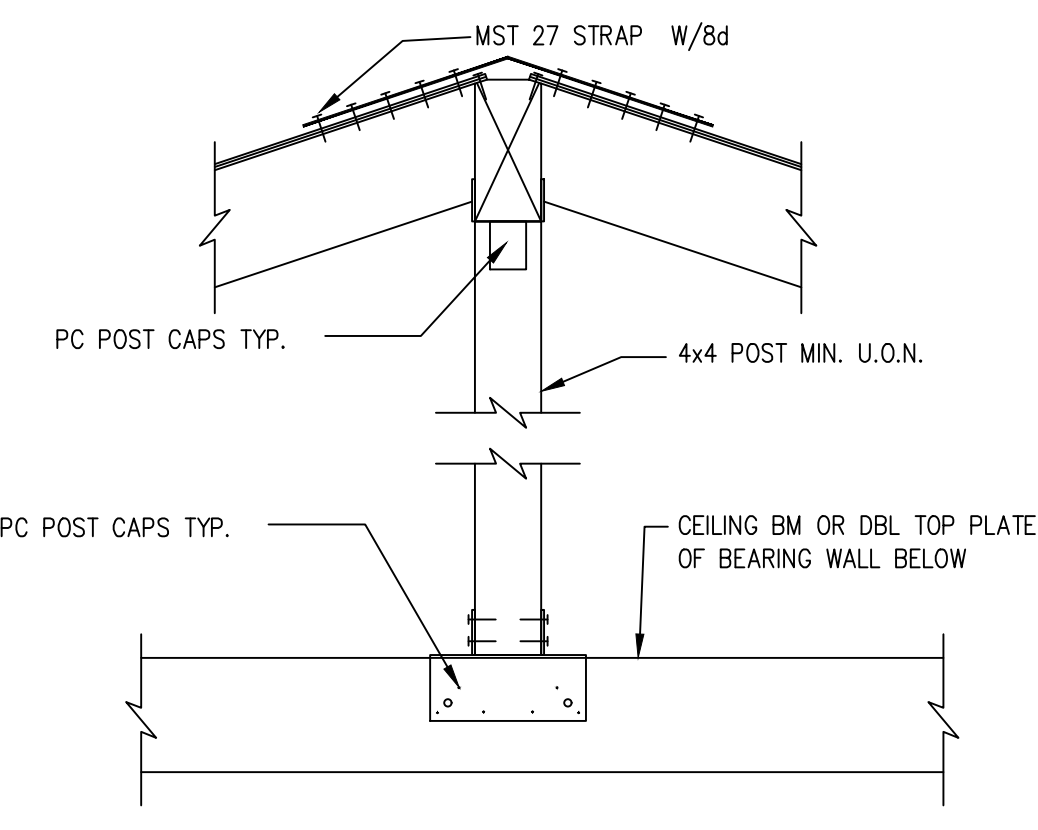


SINGLE FAMILY HOUSE  
202 ALTURA VISTA,  
LOS ALTOS, CA 95032

PROJECT  
ADDITION &  
REMODEL  
SHEET TITLE  
STRUCTURAL  
DETAILS

REVISION	
DATE 05.05.21	
DRAWN BY AA	
SCALE AS SHOWN	
SHEET	



				INTERIOR S.W. AT ROOF	NTS	16	EAVE FRAMING	NTS	12	3/4"	5	3/4"	1
				CALIFORNIA FRAMING	NTS	17		3/4"	9	3/4"	6	NTS	2
				COLLECTOR/ DRAG	NTS	18	SECTION	NTS	14	3/4"	10	7	3
					19	DRAG STRAP	NTS	15	3/4"	11	3/4"	8	4

STRUCTURE ENGINEER  
DAN L. CHEN S.E.  
T 510 579 8230  
47849 Masters Ct.  
Fremont, CA 94539



SINGLE FAMILY HOUSE  
202 ALTURA VISTA,  
LOS ALTOS, CA 95032

PROJECT

ADDITION &  
REMODEL

SHEET TITLE

STRUCTURAL  
DETAILS

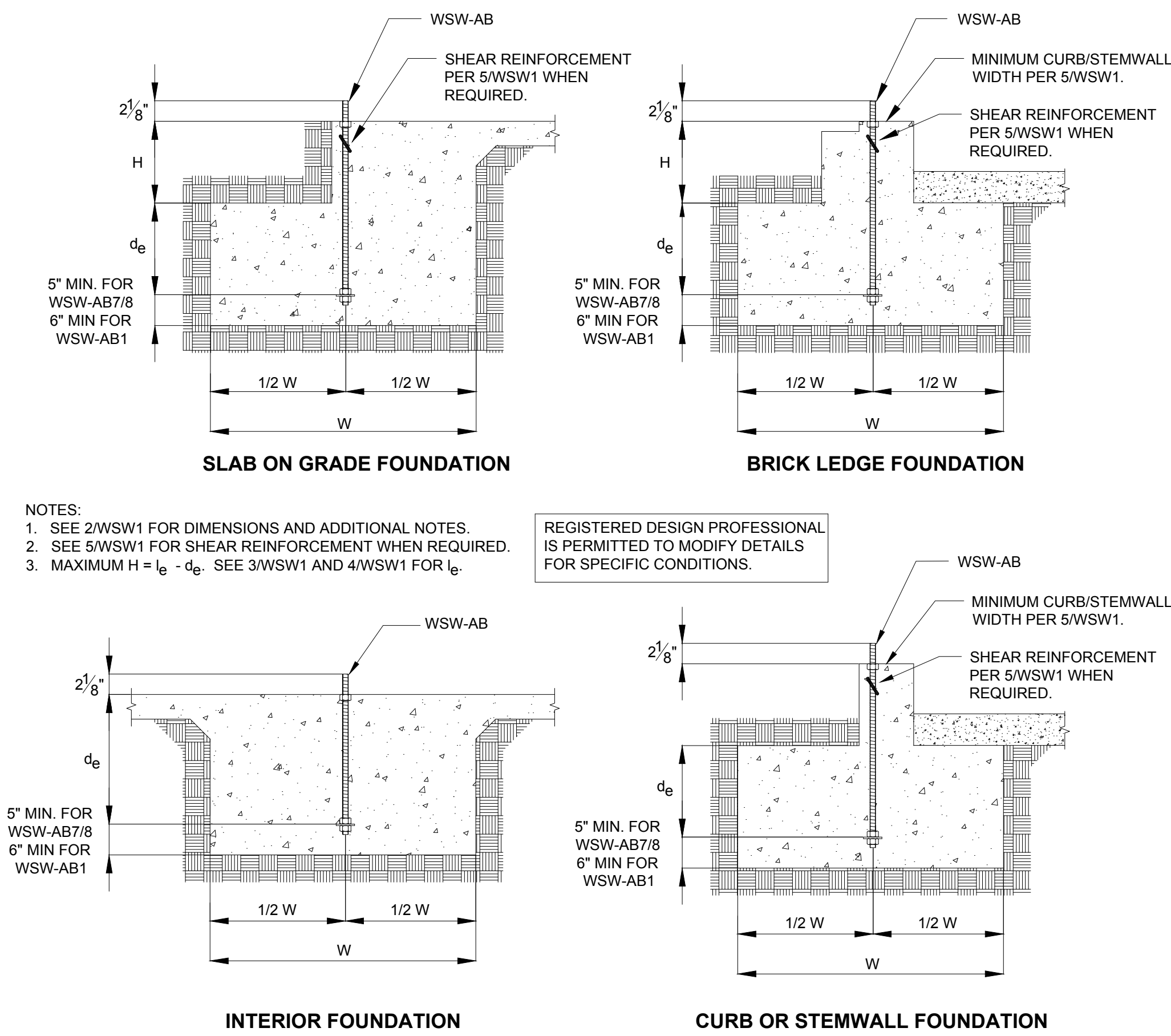
REVISION



DATE 05.05.21  
DRAWN BY AA  
SCALE AS SHOWN  
SHEET

S-6





STRONG-WALL® WSW ANCHORAGE - TYPICAL SECTIONS

1

WSW ANCHOR BOLTS

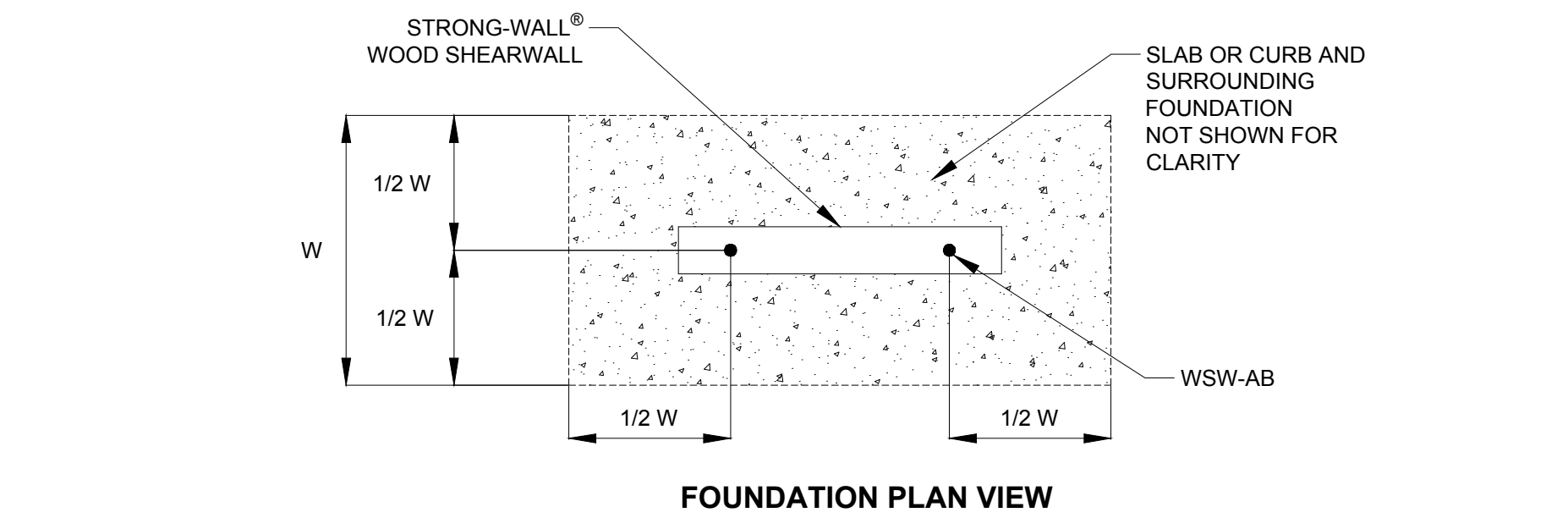
3

WSW ANCHOR BOLT EXTENSION

4

WSW ANCHOR BOLT TEMPLATES

6



WSW ANCHORAGE SOLUTIONS FOR 2500 PSI CONCRETE							
DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSW-AB7/8 ANCHOR BOLT			WSW-AB1 ANCHOR BOLT	
			ASD ALLOWABLE TENSION (lb.)	W (in.)	d <sub>e</sub> (in.)	ASD ALLOWABLE TENSION (lb.)	d <sub>e</sub> (in.)
SEISMIC	CRACKED	STANDARD	11,900	27	9	16,100	33
			13,100	29	10	17,100	35
		HIGH STRENGTH	24,900	43	15	33,000	51
	UNCRAKED	STANDARD	27,100	46	16	35,300	54
			12,500	24	8	15,700	28
		HIGH STRENGTH	13,100	25	9	17,100	30
WIND	CRACKED	STANDARD	25,300	38	13	32,300	44
			27,100	40	14	35,300	47
			5,100	14	6	6,200	16
		HIGH STRENGTH	8,700	20	7	11,400	24
			13,100	27	9	17,100	32
			15,900	30	10	21,100	36
	UNCRAKED	STANDARD	18,400	33	11	27,300	42
			23,100	38	13	31,800	46
			27,100	42	14	35,300	50
		HIGH STRENGTH	5,000	12	6	6,400	14
			9,300	18	6	12,500	22
			13,100	23	8	17,100	28

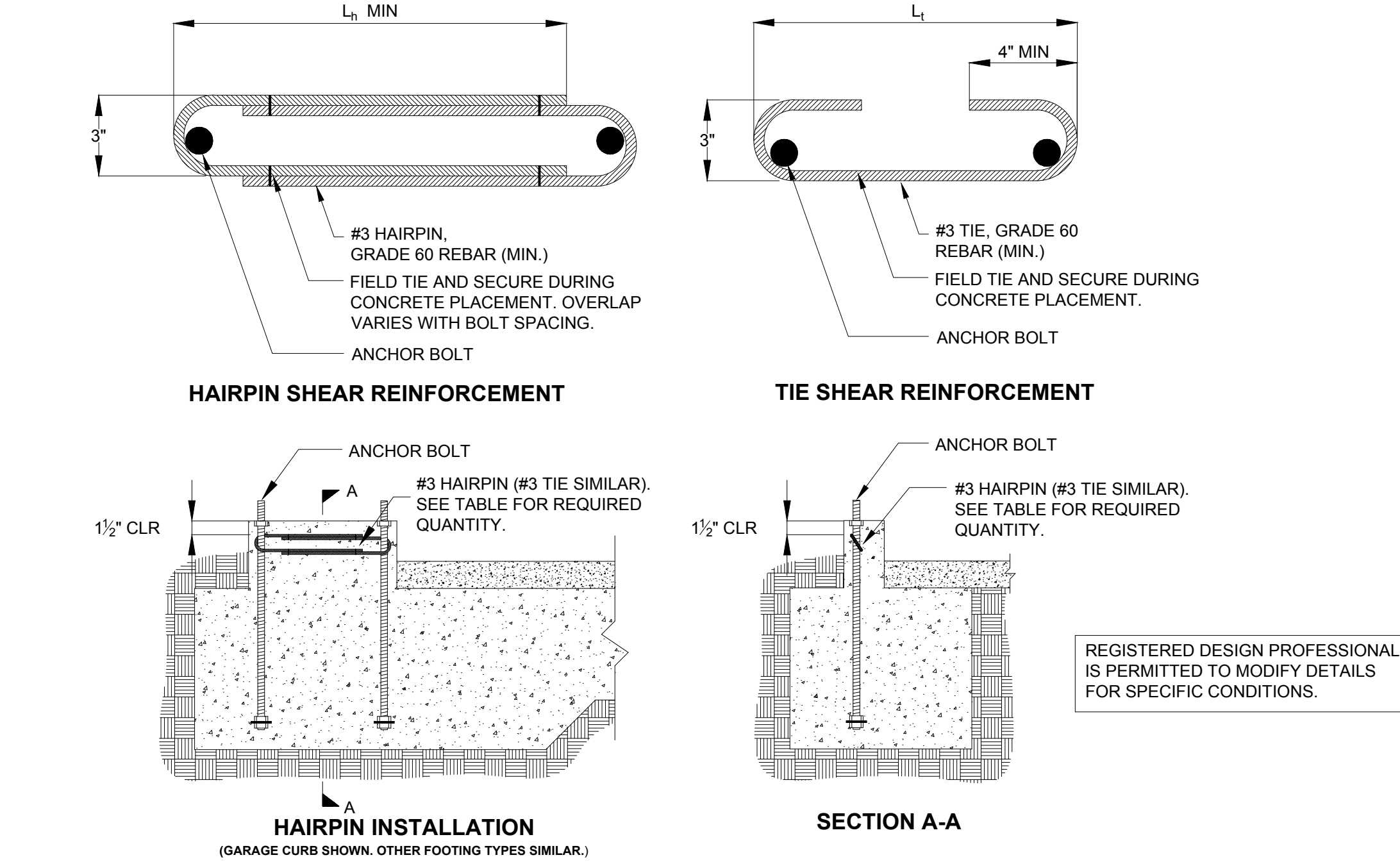
- NOTES:
- ANCHORAGE DESIGNS CONFORM TO ACI 318-11 APPENDIX D AND ACI 318-14 WITH NO SUPPLEMENTARY REINFORCEMENT FOR CRACKED OR UNCRACKED CONCRETE AS NOTED.
  - ANCHOR STRENGTH INDICATES REQUIRED GRADE OF WSW-AB ANCHOR BOLT. STANDARD (ASTM F1554 GRADE 36) OR HIGH STRENGTH (HS) (ASTM A449).
  - SEISMIC INDICATES SEISMIC DESIGN CATEGORY C - F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC ANCHORAGE DESIGNS CONFORM TO ACI 318-11 SECTION D.3.3.4.3 AND ACI 318-14 SECTION 17.2.3.4.3.
  - WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.
  - FOUNDATION DIMENSIONS ARE FOR ANCHORAGE ONLY. FOUNDATION DESIGN (SIZE AND REINFORCEMENT) BY OTHERS. THE REGISTERED DESIGN PROFESSIONAL MAY SPECIFY ALTERNATE EMBEDMENT, FOOTING SIZE OR ANCHOR BOLT.
  - REFER TO 1/WSW1 FOR d<sub>e</sub>.

STRONG-WALL® WOOD SHEARWALL TENSION ANCHORAGE SCHEDULE 2,500, 3,000 AND 4,500 PSI

2

WSW ANCHORAGE SOLUTIONS FOR 3000 PSI CONCRETE							
DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSW-AB7/8 ANCHOR BOLT			WSW-AB1 ANCHOR BOLT	
			ASD ALLOWABLE TENSION (lb.)	W (in.)	d <sub>e</sub> (in.)	ASD ALLOWABLE TENSION (lb.)	d <sub>e</sub> (in.)
SEISMIC	CRACKED	STANDARD	12,300	26	9	16,000	31
			13,100	28	10	17,100	33
		HIGH STRENGTH	25,200	41	14	32,700	48
	UNCRAKED	STANDARD	27,100	43	15	35,300	51
			12,000	22	8	16,300	27
		HIGH STRENGTH	13,100	24	8	17,100	28
WIND	CRACKED	STANDARD	25,300	36	12	32,700	42
			27,100	38	13	35,300	44
			5,000	13	6	5,600	14
		HIGH STRENGTH	8,800	19	7	10,200	21
			13,100	25	9	17,100	30
			15,700	28	10	20,100	33
	UNCRAKED	STANDARD	19,200	32	11	25,300	38
			23,200	36	12	32,300	44
			27,100	40	14	35,300	47
		HIGH STRENGTH	5,500	12	6	6,200	13
			8,500	16	6	12,800	21
			13,100	22	8	17,100	26

WSW ANCHORAGE SOLUTIONS FOR 4500 PSI CONCRETE							
DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSW-AB7/8 ANCHOR BOLT			WSW-AB1 ANCHOR BOLT	
			ASD ALLOWABLE TENSION (lb.)	W (in.)	d <sub>e</sub> (in.)	ASD ALLOWABLE TENSION (lb.)	d <sub>e</sub> (in.)
SEISMIC	CRACKED	STANDARD	12,600	23	8	16,000	27
			13,100	24	8	17,100	29
		HIGH STRENGTH	24,800	36	12	32,100	42
			27,100	38	13	35,300	45
	UNCRAKED	STANDARD	12,700	20	7	15,700	23
			13,100	21	7	17,100	25
WIND	CRACKED	STANDARD	24,600	31	11	32,500	37
			27,100	34	12	35,300	39
			5,400	12	6	6,800	14
		HIGH STRENGTH	8,300	16	6	11,600	20
			13,100	22	8	17,100	26
			15,300	24	8	21,400	30
	UNCRAKED	STANDARD	19,300	28	10	25,800	34
			23,600	32	11	31,000	38
			27,100	36	12	35,300	42
		HIGH STRENGTH	6,800	12	6	6,800	12
			9,400	15	6	12,400	18
			13,100	19	7	17,100	23



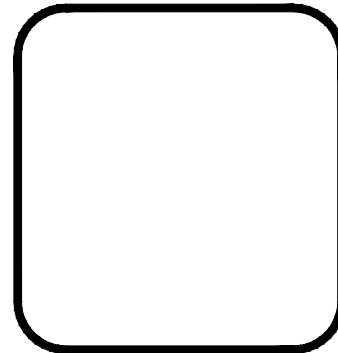
STRONG-WALL® WOOD SHEARWALL SHEAR ANCHORAGE							
MODEL	L <sub>1</sub> OR L <sub>h</sub> (in.)	SEISMIC <sup>3</sup>		WIND <sup>4</sup>			
		SHEAR REINFORCEMENT	MINIMUM CURB/ STEMWALL WIDTH (in.)	SHEAR REINFORCEMENT	MINIMUM CURB/ STEMWALL WIDTH (in.)	ASD ALLOWABLE SHEAR LOAD, V (lb.) <sup>6</sup>	
						UNCRAKED	CRACKED
WSW12	10¼	(1) #3 HAIRPIN	8 <sup>5</sup>	SEE NOTE 6	6	1,035	740
WSW18	15	(1) #3 HAIRPIN	8 <sup>5</sup>	(1) #3 HAIRPIN	6	HAIRPIN REINFORCEMENT ACHIEVES MAXIMUM ALLOWABLE SHEAR LOAD OF THE WSW	
WSW24	19	(2) #3 HAIRPINS	8 <sup>5</sup>	(1) #3 HAIRPIN	6		

- NOTES:
- SHEAR ANCHORAGE DESIGNS CONFORM TO ACI 318-11 AND ACI 318-14 AND ASSUME MINIMUM 2,500 PSI CONCRETE.
  - SHEAR REINFORCEMENT IS NOT REQUIRED FOR INTERIOR FOUNDATION APPLICATIONS (PANEL INSTALLED AWAY FROM EDGE OF CONCRETE), OR BRACED WALL PANEL APPLICATIONS.
  - SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS.
  - WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.
  - WHERE NOTED, MINIMUM CURB/STEMWALL WIDTH IS 6 INCHES WHEN STANDARD STRENGTH ANCHOR BOLT IS USED.
  - USE (1) #3 TIE FOR WSW12 WHEN PANEL DESIGN SHEAR FORCE EXCEEDS TABULATED ANCHORAGE ALLOWABLE SHEAR LOAD.
  - #4 GRADE 40 SHEAR REINFORCEMENT MAY BE SUBSTITUTED FOR WSW SHEAR ANCHORAGE SOLUTIONS.

STRONG-WALL® WSW SHEAR ANCHORAGE SCHEDULE AND DETAILS

5

REVISIONS		DATE	NO.	DESCRIPTION
FIRST RELEASE - 2015 B.C.		07/01/2016	0	



**SIMPSON STRONG-TIE COMPANY, INC.**  
HOME OFFICE:  
5956 W. LAS POSITAS BLVD.  
PLEASANTON, CA 94588  
TEL: (800) 999-5099



**STRONG-WALL® WSW**  
ANCHORAGE DETAILS  
ENGINEERED DESIGNS



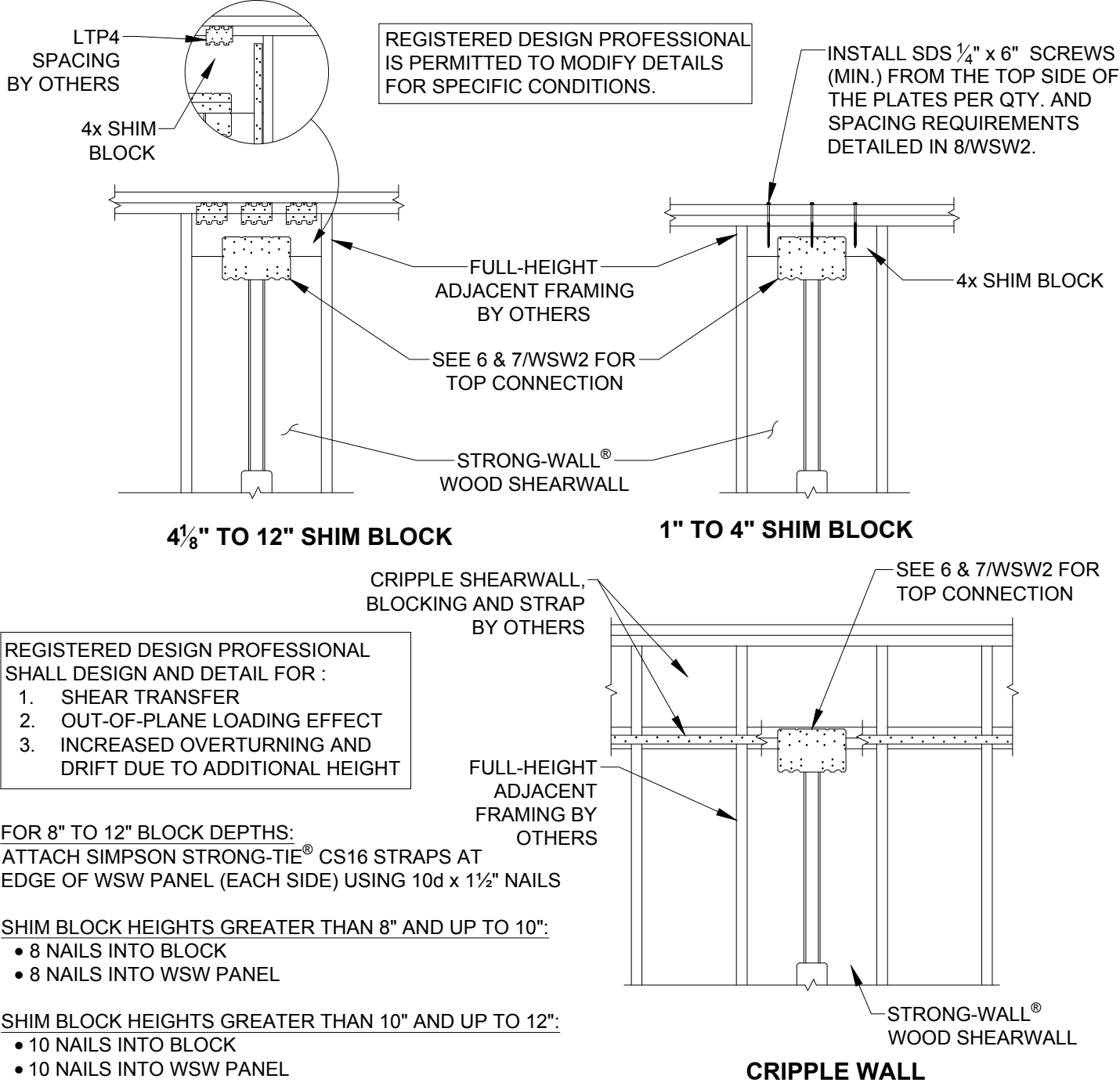
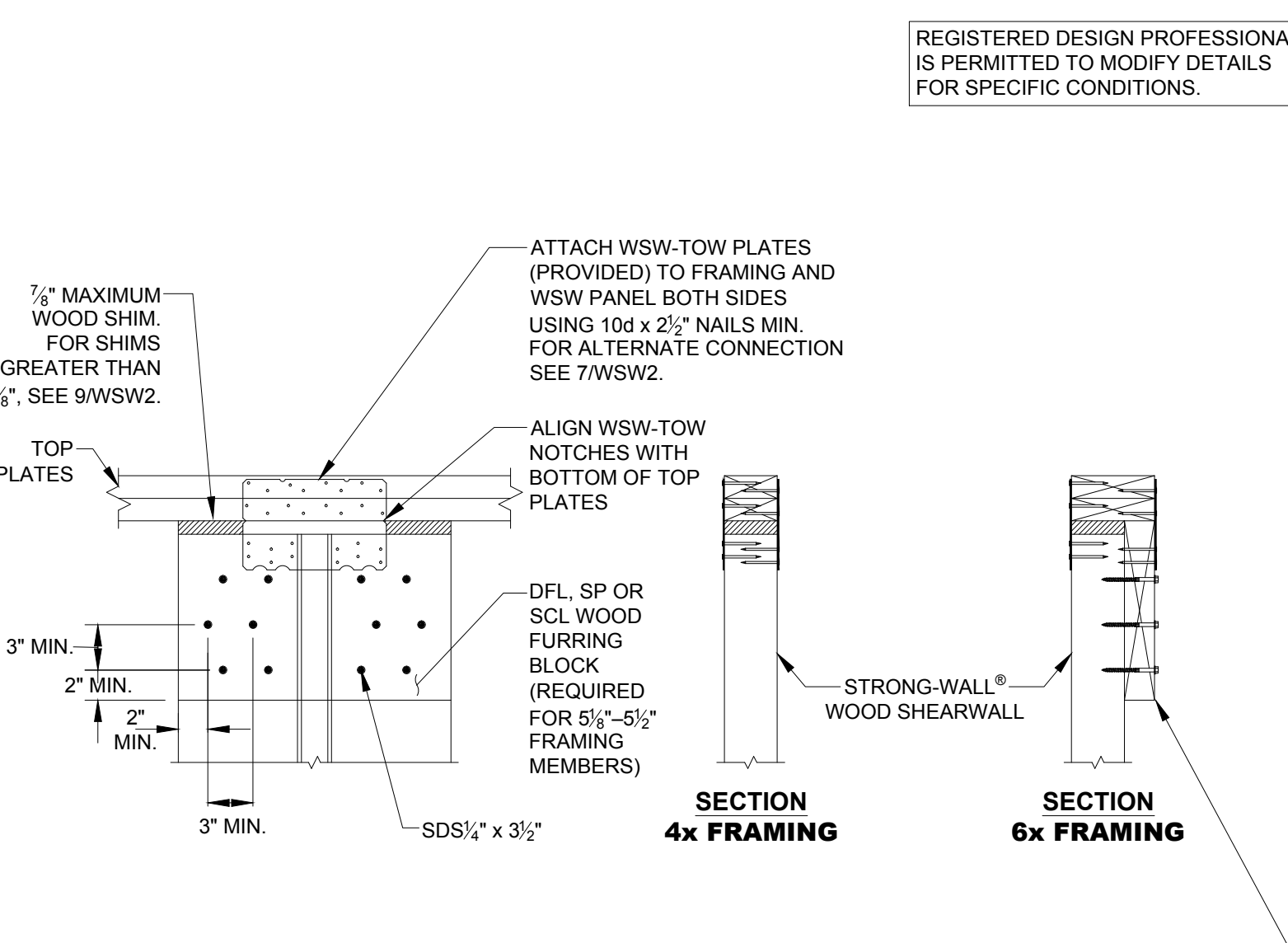
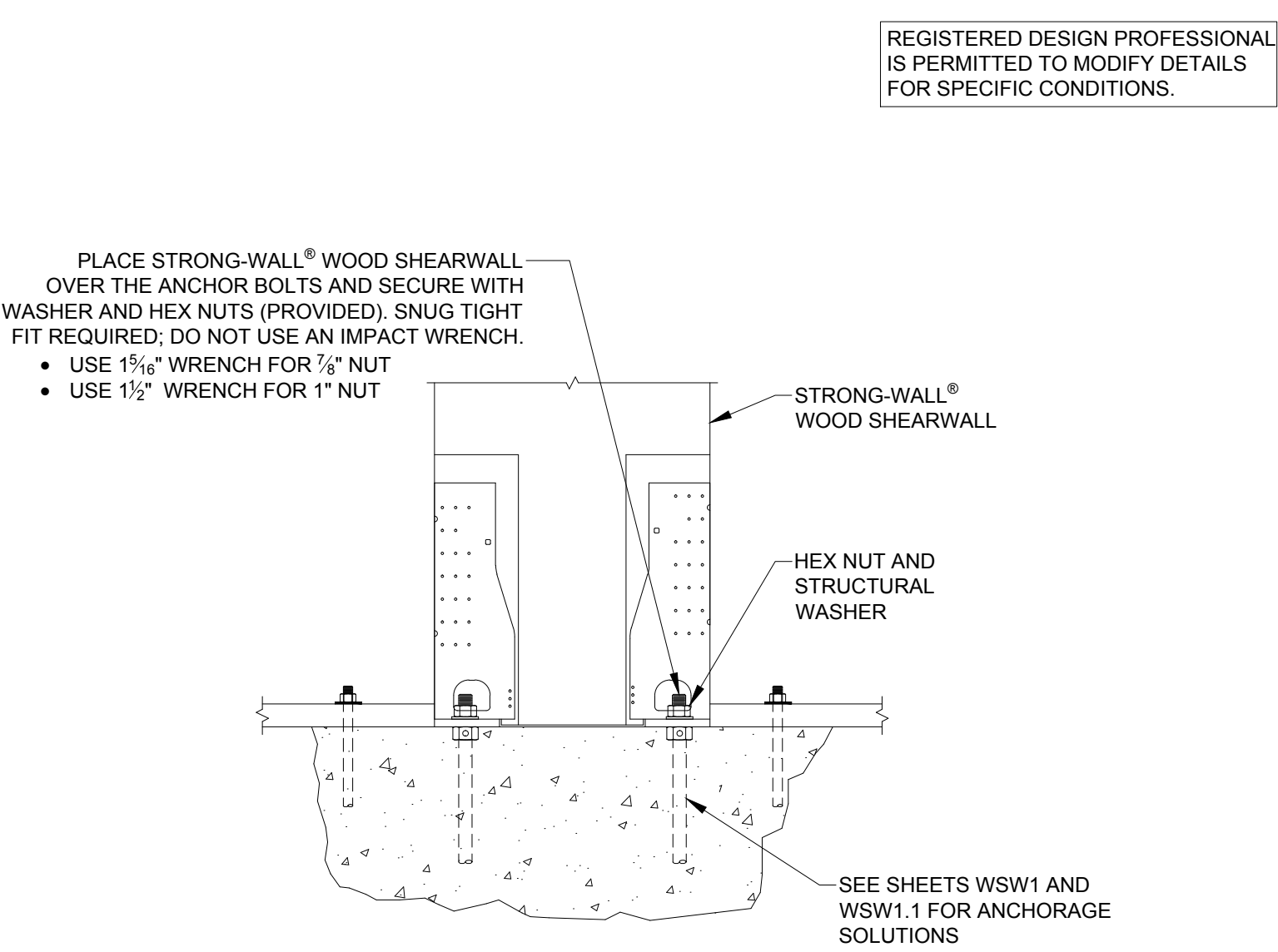
NAME	
DATE	07-01-2016
SCALE	N.T.S.
CHECKED	
SHEET	
<b>WSW1</b>	
OF	SHEETS
JOB NO.	



STRONG-WALL® WOOD SHEARWALL MODELS

MODEL NO.	W (in.)	H (in.)	ANCHOR BOLTS		TOTAL WALL WEIGHT (lb.)
			QUANTITY	DIA. (in.)	
WSW12x7	12	78	2	7/8	100
WSW18x7	18	78	2	7/8	145
WSW12x7.5	12	85 1/2	2	7/8	110
WSW18x7.5	18	85 1/2	2	7/8	155
WSW12x8	12	93 1/4	2	7/8	115
WSW18x8	18	93 1/4	2	7/8	165
WSW24x8	24	93 1/4	2	1	225
WSW12x9	12	105 1/4	2	7/8	130
WSW18x9	18	105 1/4	2	7/8	185
WSW24x9	24	105 1/4	2	1	245
WSW12x10	12	117 1/4	2	7/8	140
WSW18x10	18	117 1/4	2	7/8	205
WSW24x10	24	117 1/4	2	1	270
WSW12x11	12	129 1/4	2	7/8	150
WSW18x11	18	129 1/4	2	7/8	220
WSW24x11	24	129 1/4	2	1	295
WSW12x12	12	141 1/4	2	7/8	165
WSW18x12	18	141 1/4	2	7/8	240
WSW24x12	24	141 1/4	2	1	320
WSW18x13	18	153 1/4	2	7/8	255
WSW24x13	24	153 1/4	2	1	345
WSW24x14	24	168	2	1	375
WSW24x16	24	192	2	1	425
WSW18x20	18	240	2	7/8	385
WSW24x20	24	240	2	1	520

- NOTES:
- FOR HEIGHTS NOT LISTED, ORDER THE NEXT TALLEST PANEL AND TRIM TO FIT. MINIMUM TRIMMED HEIGHT FOR ALL PANELS IS 74 1/2".
  - ALL PANELS COME WITH TWO PRE-ATTACHED HOLDDOWNS, TWO STANDARD HEX NUTS, TWO STRUCTURAL WASHERS, TWO WSW-TOW PLATES AND INSTALLATION INSTRUCTIONS.
  - ALL PANELS ARE 3/2" THICK.



STRONG-WALL® WSW MODELS

1

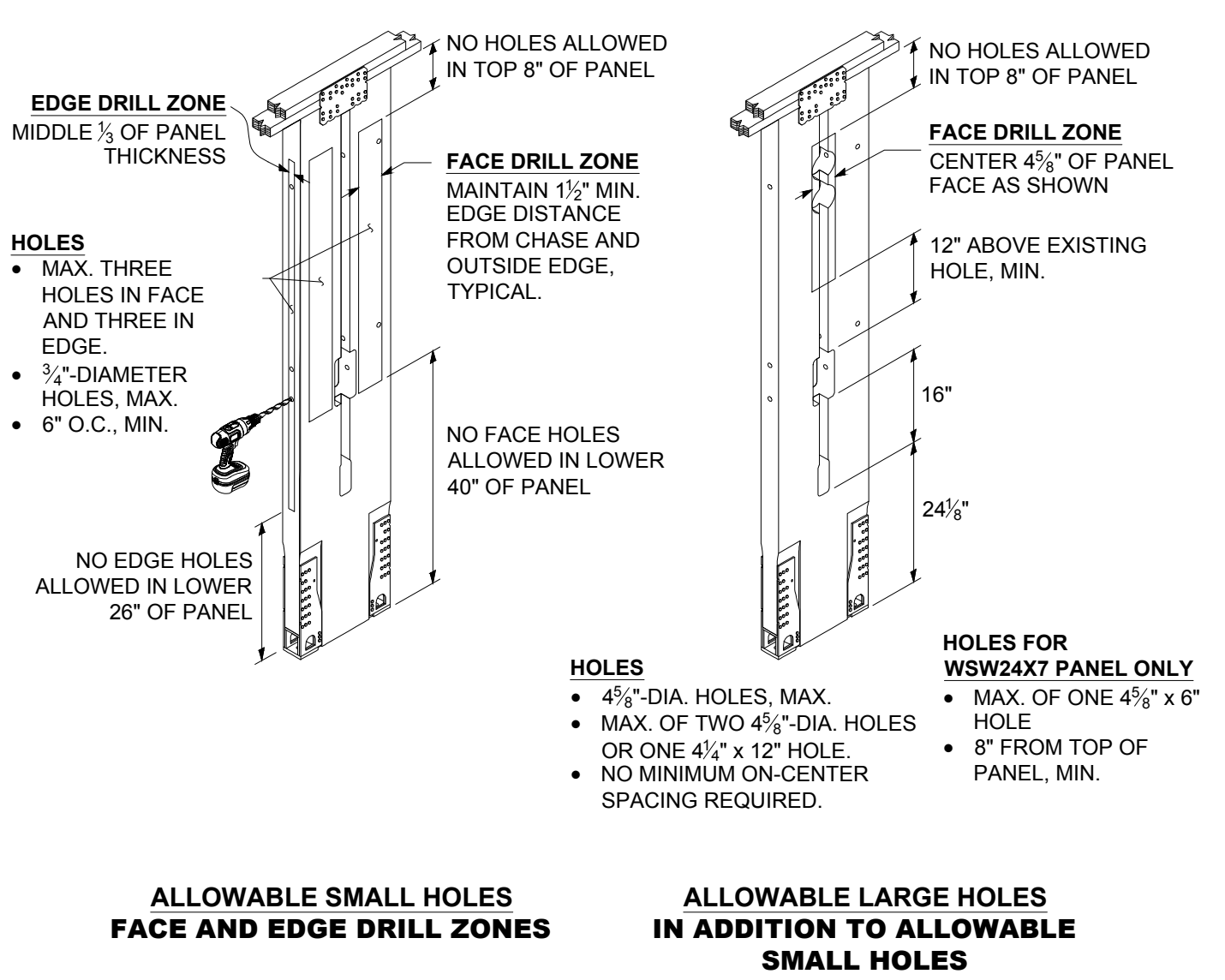
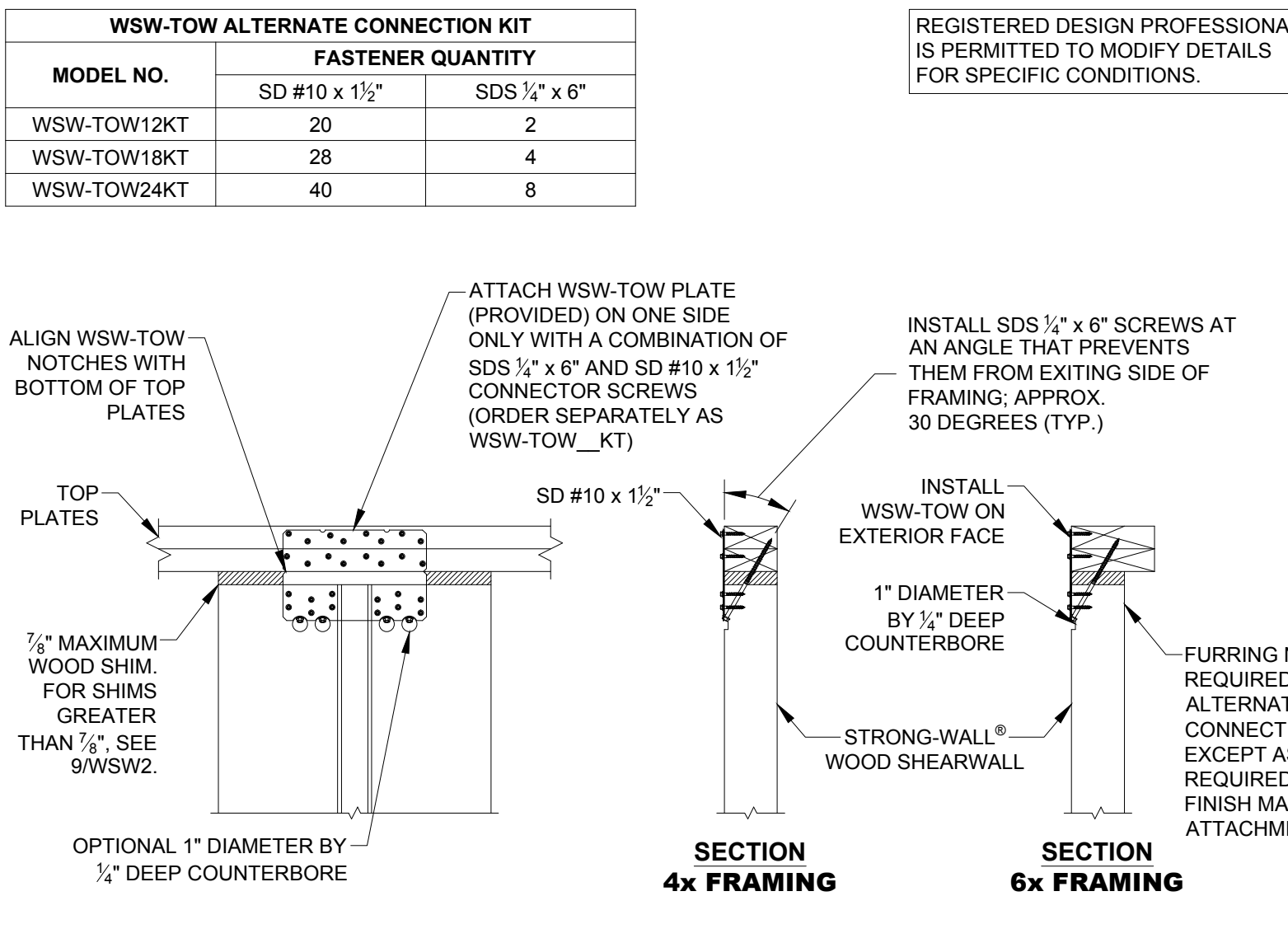
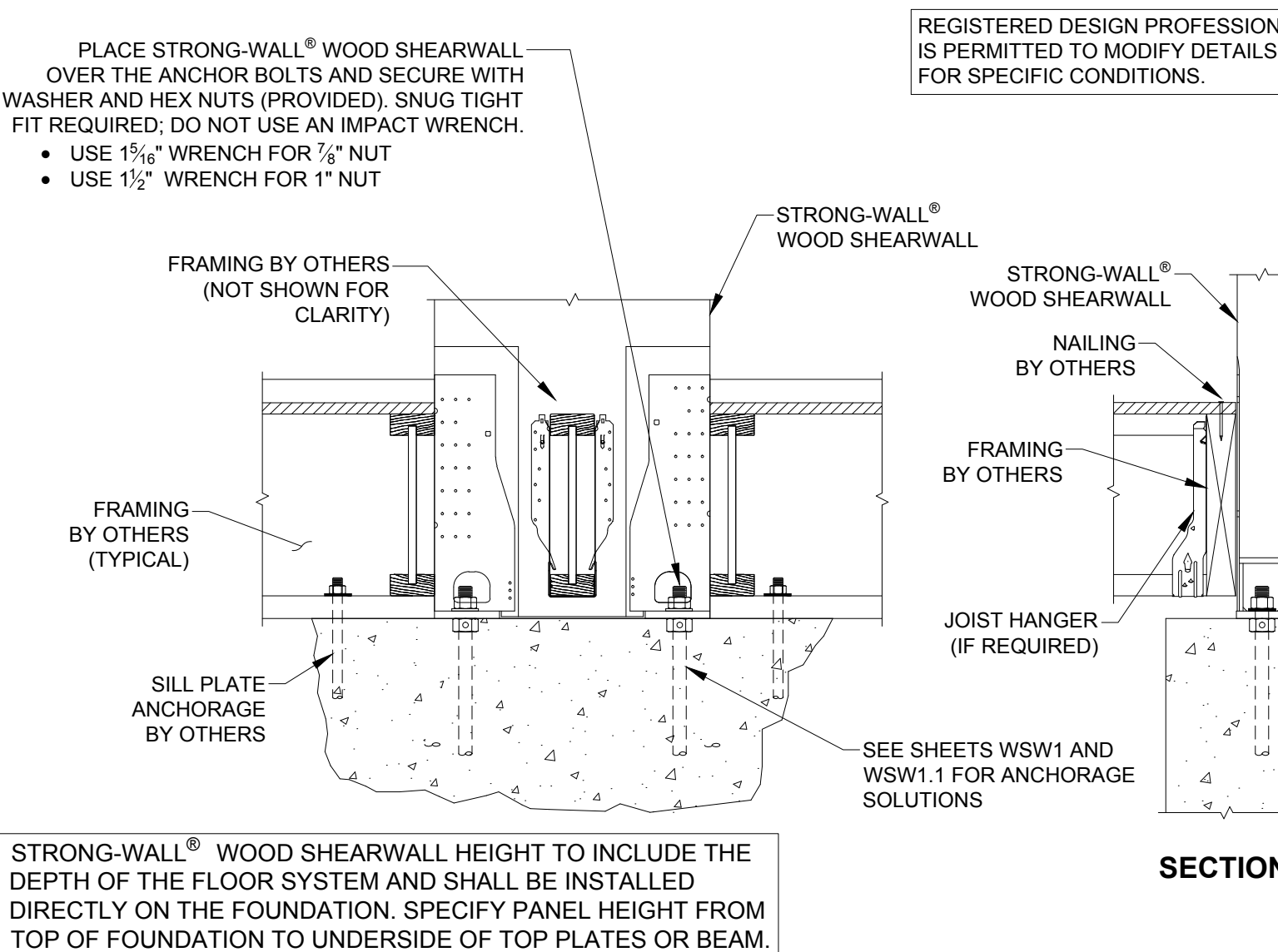
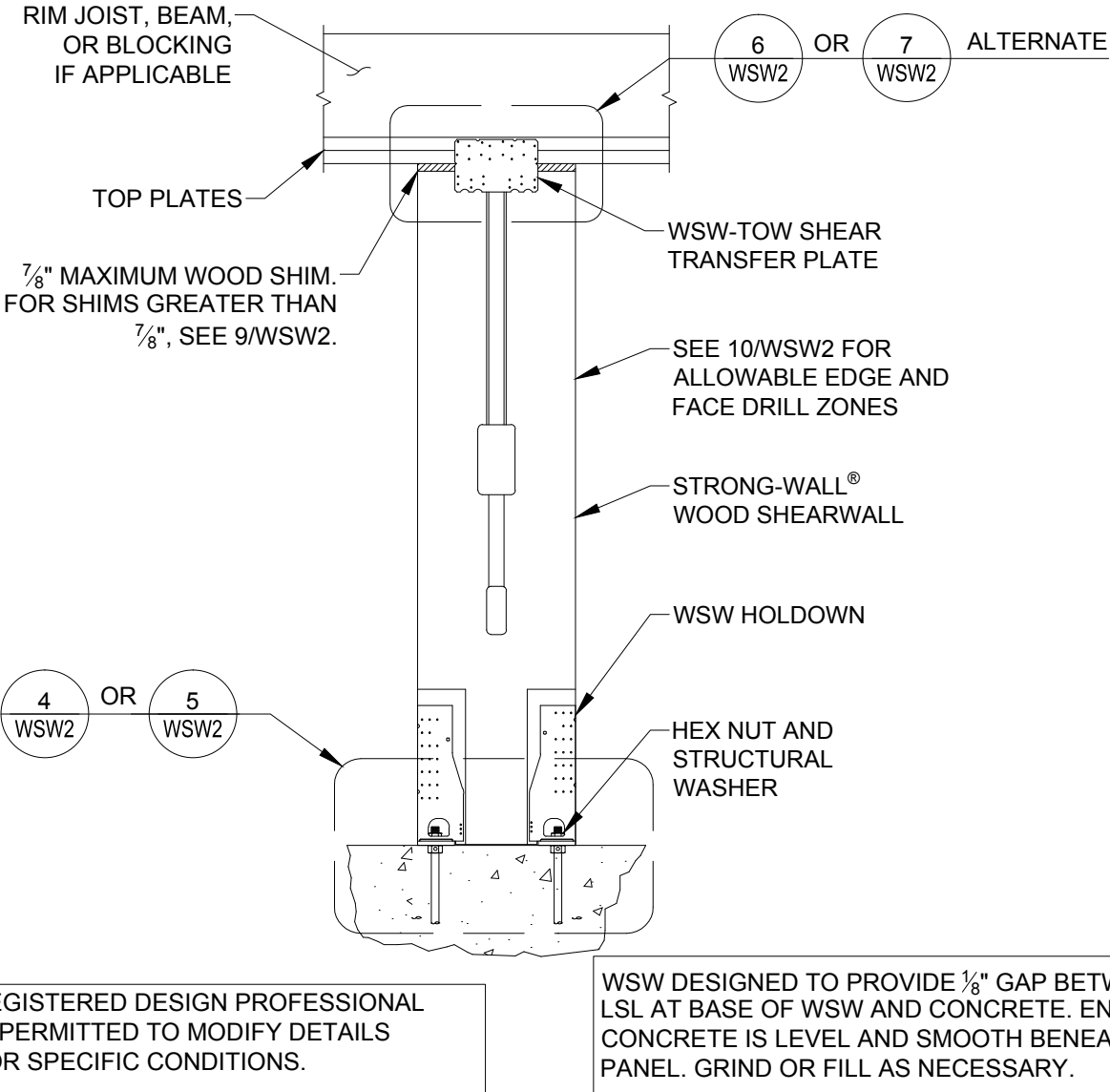
STANDARD INSTALLATION BASE CONNECTION

4

STANDARD TOP CONNECTION

TOP OF WALL HEIGHT ADJUSTMENTS

9



SINGLE STORY WSW ON CONCRETE

2

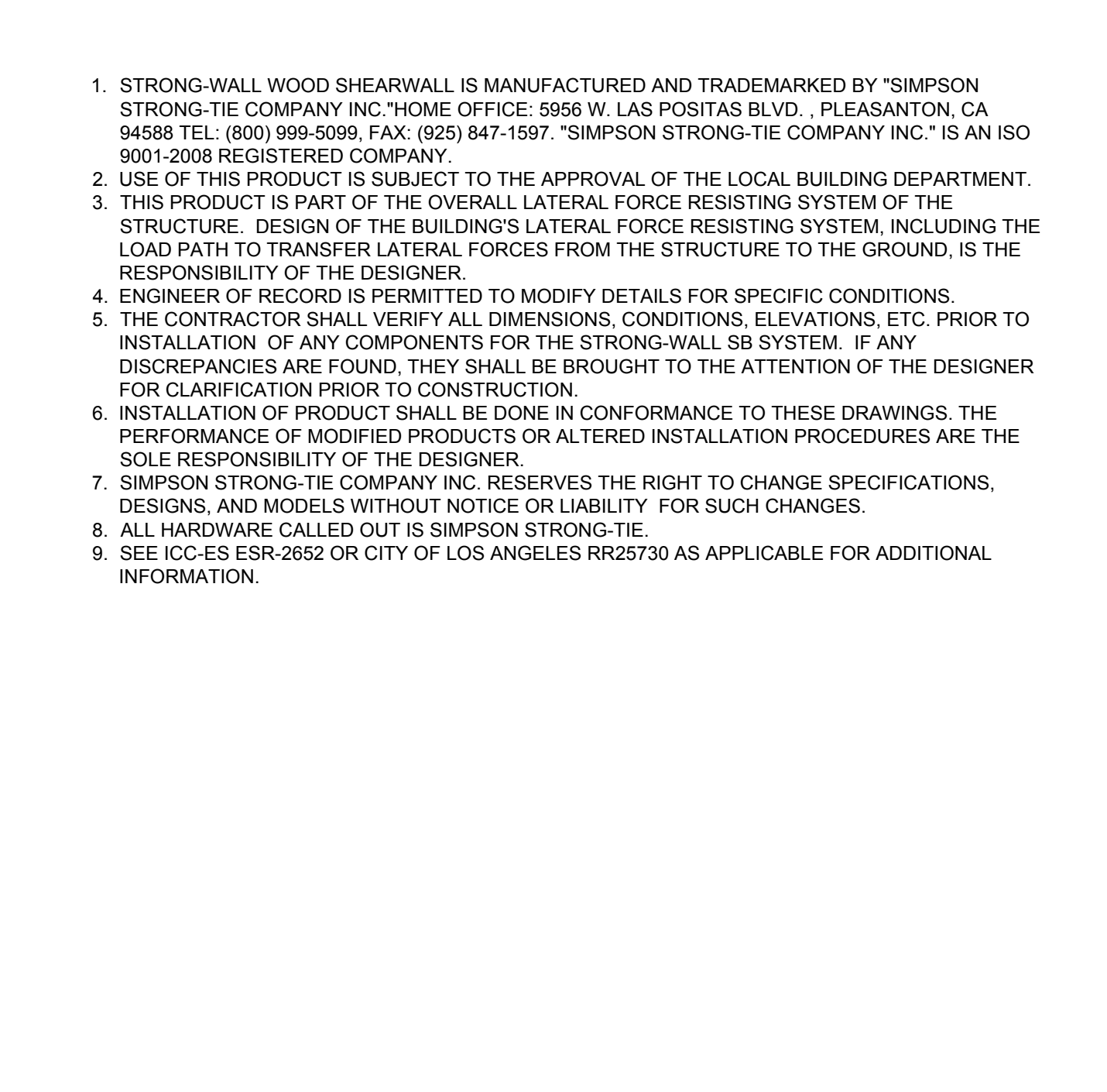
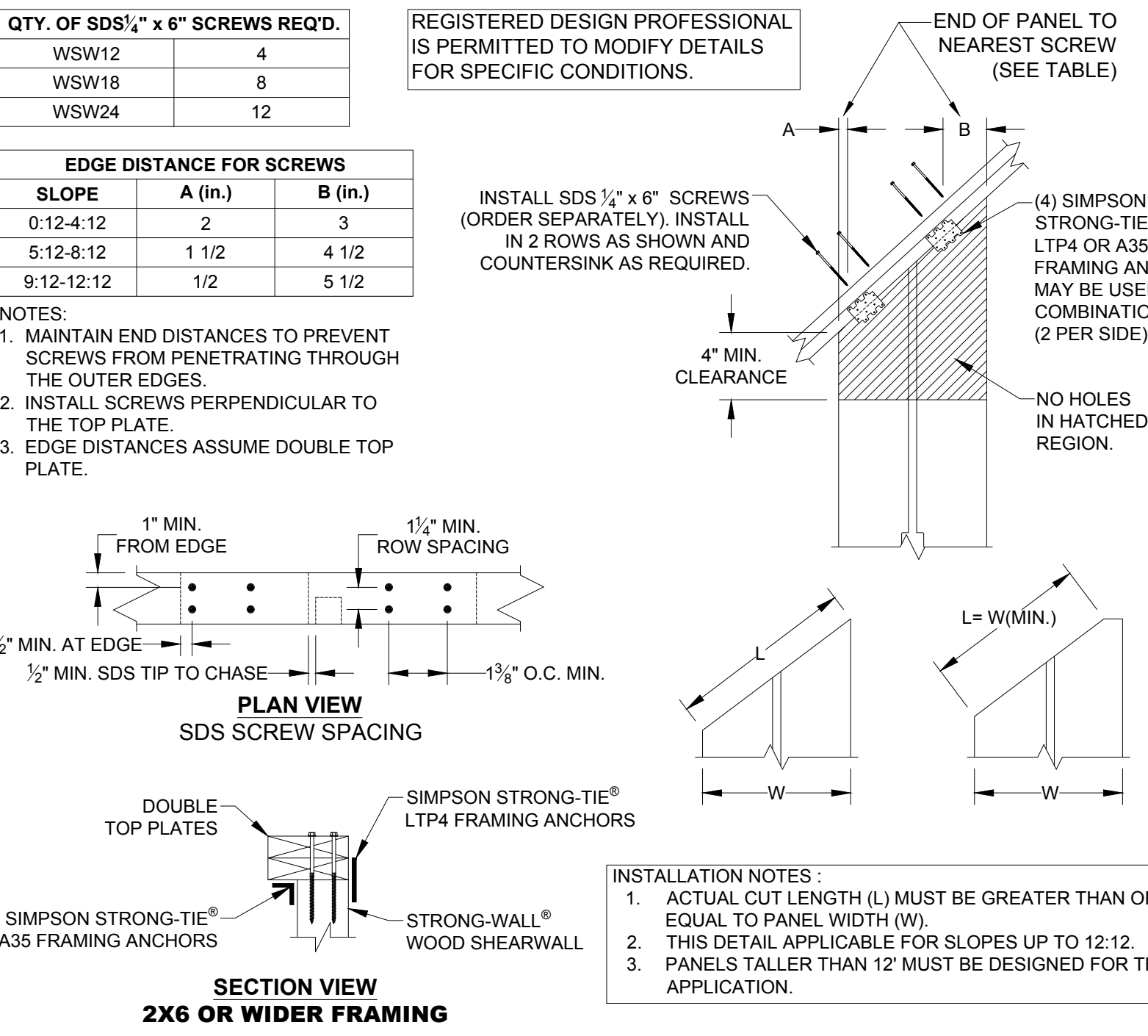
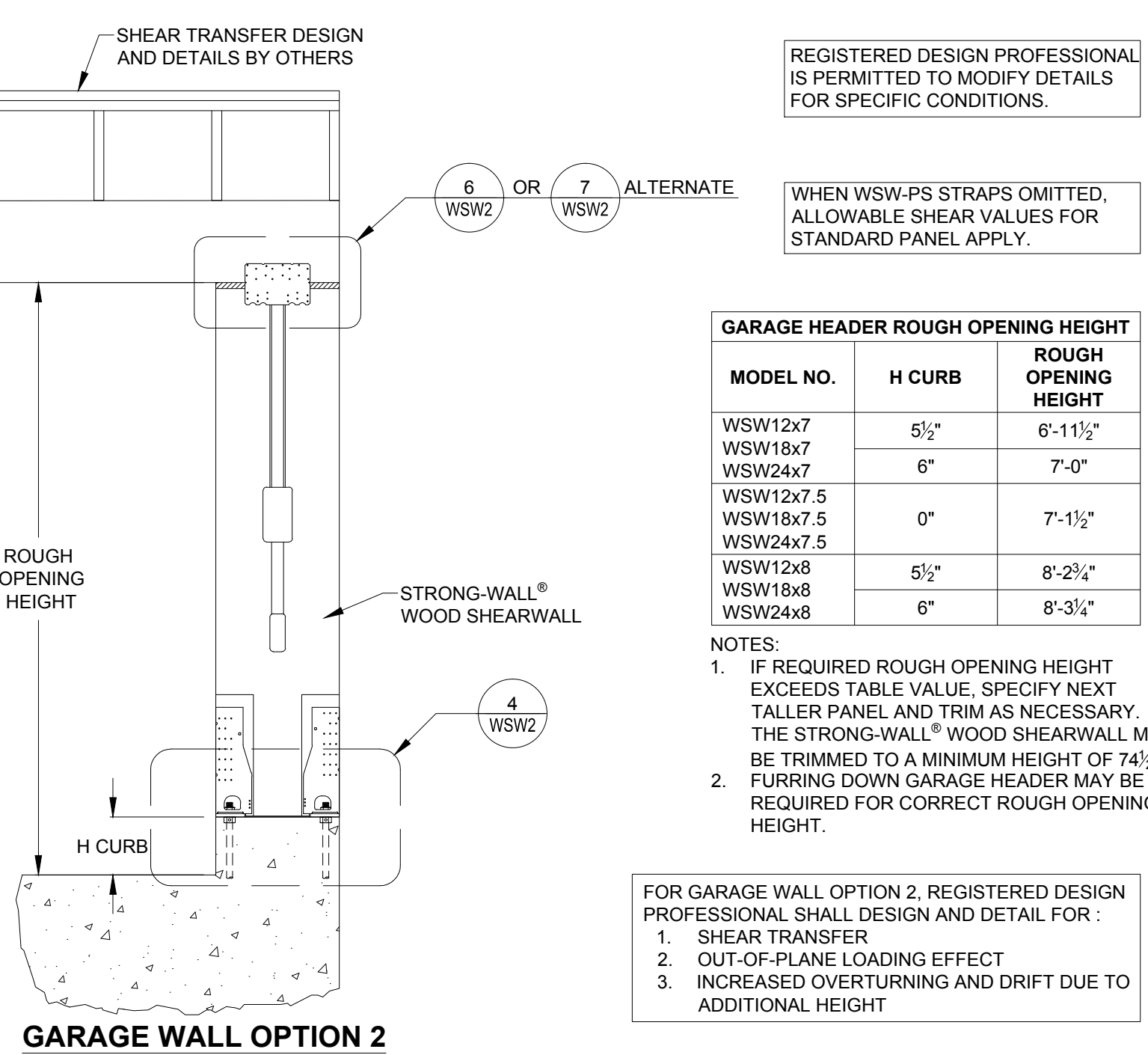
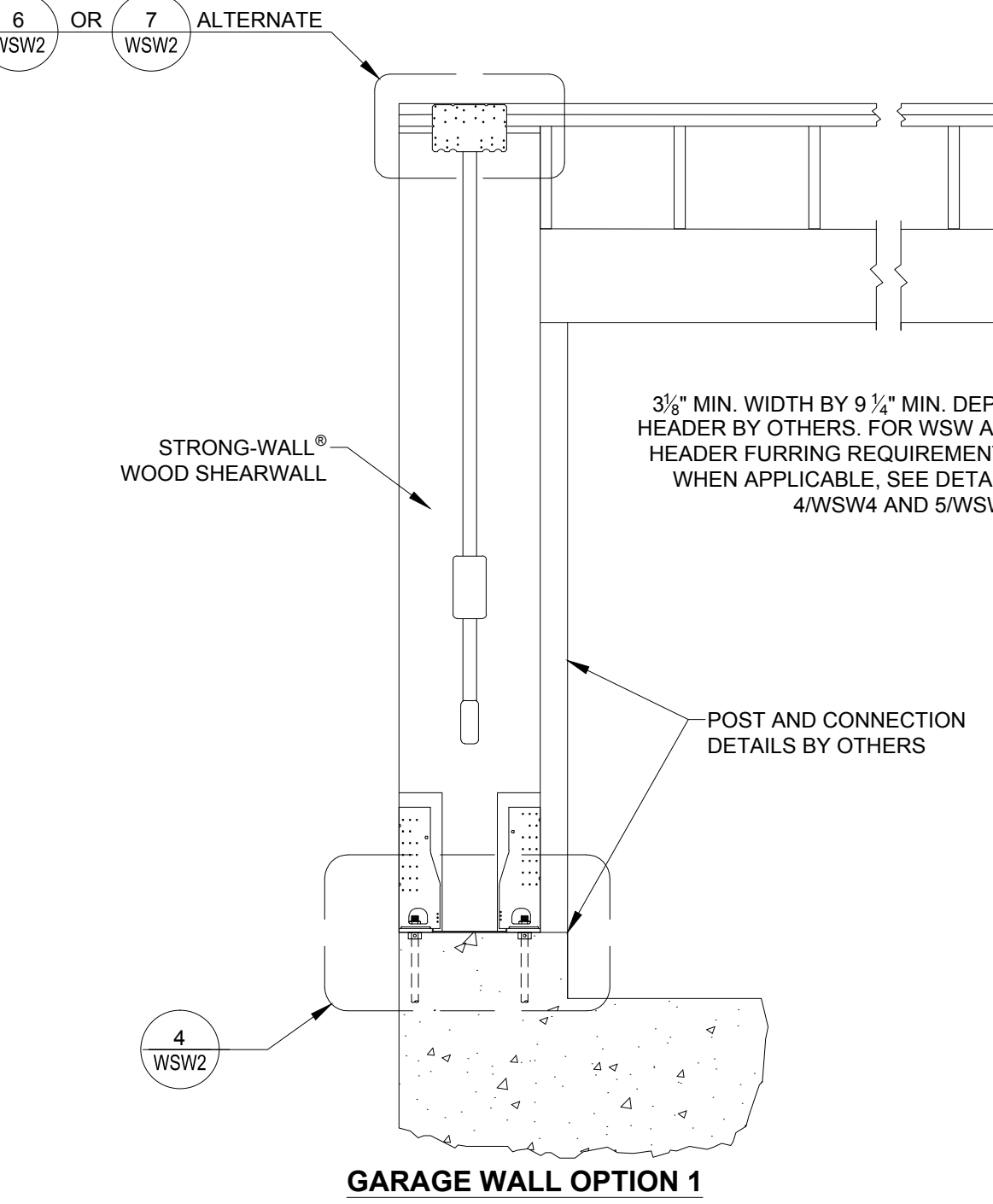
WOOD FLOOR SYSTEM BASE CONNECTION

5

ALTERNATE TOP CONNECTION

TRIM ZONE AND ALLOWABLE HOLES

10



ALTERNATE WSW GARAGE FRONT OPTIONS

3

RAKE WALL

NOTES

11

REVISIONS

NO.	DATE	DESCRIPTION
0	07/01/2016	FIRST RELEASE-2015 BC

STRONG-WALL® WSW

FRAMING DETAILS

ENGINEERED DESIGNS

NAME

DATE

SCALE

CHECKED

SHEET

WSW2

OF SHEETS

JOB NO.

STRONG-TIE COMPANY, INC.

HOME OFFICE: 5956 W. LAS POSITAS BLVD. PLEASANTON, CA 94588

TEL: (800) 999-5099

STRONG-TIE

Strong-Tie

THERE IS NO EQUAL

07-01-2016

N.T.S.

WSW2